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PRESIDENT'S ADDRESS

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BY H. A. McCALLUM, M.D., M.R.C.P. (LOND.)

IF I had considered the high honour and responsibility awarded me by the Canadian Medical Association at our meeting in Edmonton last year, I should perhaps have declined the flattering tribute, as much from consciousness of my own inability to fulfill the distinguished position in a manner satisfactory to myself, as from a sense of what is eminently due to the scientific and high professional character of this national Association. However, inadequate as the discharge of my obligations of office may prove to be, I am emboldened by the support of my local colleagues, and the encouragement of numerous members throughout the Dominion, to rely upon your indulgence for whatever is stale and unimportant, or for whatever may be defective in the manner of my address to-night. It has been the practice of my predecessors in office, to sweep the whole horizon of Canadian medicine for objects worthy of the attention of this Association. I plead for the liberty to say painful truth when dealing with matters that affect the honour of our profession, and it is not from love of wounding or pleasure of stinging, that I am dealing boldly with professional defects and offences. I would rightly merit the contempt of you all, did I pass these things by on the other side.

The first thing to challenge our attention, is the relative indifference shown to this Association and what it represents by too many of the eight thousand doctors in the Dominion. The Association has had no mean part in removing narrow, provincial medical prejudices and in bringing about legislation that resulted

in the accomplishment of Dominion registration. The splendid service of the British Medical Association to the profession of the British Isles, in dealing with the terms of Lloyd George's Insurance Bill, points out what an association can do for each individual member of the profession. The future outlook of Canadian medicine, demands a strong association to confront legislation that would make us a despised arm of the Civil Service. It may be there are greater evils in store for us than being brought under the pay and direction of the Canadian Civil Service. If thereby the public were protected against its own "giant credulity" and our profession purged of its abuses, one could gladly welcome the change. So long as a nation can elect a demagogue to its legislative halls, there is sure to arise the attempt. It may be in the very near future. Let us be armed to secure the most favourable terms. If four-fifths of the profession belonged to the Association, instead of one-fifth, as at present, no attempt could get under way to bring us into the service without our consent.

Previous to the inauguration of the Association JOURNAL, there were practically no permanent members of the Association, except its officers. The membership lasted only during the meeting, and its character changed from year to year. Since the appearance of the JOURNAL, the permanent membership has reached nearly fifteen hundred, and the attendance at the annual meetings has more than doubled. Two factors have created gigantic associations in the United States and Great Britain, viz., the unification of all city or county societies with the national association, and the establishment of a weekly journal. The national association should be the apex of the pyramid, whose base is the provincial societies built upon the city and county societies. At the suggestion of President Mackid, the Association last year directed the secretary to induce each provincial society to secure affiliation with itself of all the city, town, and county societies.

¶ The great bond between the national association and the individual in the profession is not the annual meeting, but the weekly journal. It is by way of a weekly journal that we can succeed in forcing this Association into greatness. It will require funds to put the Association JOURNAL out as a weekly, but the difficulty of obtaining these funds is not insurmountable. One way is to canvass the profession for a membership on the basis of a weekly journal. A membership of one half of the profession of this country, would assure the continued existence of a weekly issue. Another way is to secure an endowment the interest on which,

when no longer needed for the maintenance of the weekly journal, could be used for lectureships and research work under the Association's guidance.

The Association is greatly in need of funds for other reasons, one of which is to rescue our profession from being exploited by the commercial enterprise of certain drug houses. Abraham Flexner ("Medical Education in Europe," page 90), speaking of this evil under the head of medical education in Germany, pertinently remarks, "The critical pharmacologist has discredited the old wives' tales that kept up the traditional pharmacopœia. Meanwhile the manufacturer is spinning a new superstition; the chemical industry of Germany is aggressively and intelligently directed. Only a critical pharmacological sense can enable the practising physician to know when to doubt and how far to believe the sanguine and assertive claims made upon him by the manufacturing chemist." The American Medical Association, through a committee on pharmacy, has undertaken to investigate some vaunted claims of certain drug houses with beneficial results to the profession in general. May I ask, are all the medical publishing houses with their endless padded encyclopædiæ on every conceivable branch of medical science, not likewise guilty of exploiting our profession? Nothing can be done against these exploitations, unless we have paid, skilled and scientific censors. For this purpose, funds obtained through increased membership are urgently needed. Above all, we need the influence of all "the respectable and redeemable members of the medical profession in the remote districts as well as in the great centres of our Commonwealth," that they may have a hand in shaping all legislation affecting the future of our profession, and the public health of our country.

The committee of this Association has been promised by the Right Hon. R. L. Borden, that there will be created in the near future, a portfolio of Public Health. In as much as these changes take a long time in coming, it behooves us to keep urging the authorities. We cannot get a pure food law or federal control of vaccines, serums, and drugs, such as has been in operation in the United States during the past ten years, without such cabinet appointment. There they have a fine of five hundred dollars or one year's imprisonment for conviction of adulteration.

Like several of my predecessors in office, I desire to refer to some phases of medical education. The Carnegie Foundation for the advancement of teaching medical education has done great service for medicine on this continent. Out of its criticisms has

arisen, almost everywhere, improvement. Not the least valuable part of its contribution is this, that it gave support to that faction of every medical faculty desirous of being abreast of modern education. The Carnegie Foundation authorities have, however, over-emphasized the laboratory side of medical instruction. The German method of medical education is to tie the medical student to a microscope, as opposed to the English method of cultivating knowledge through the unaided eye. In Germany, the aim is to make scientists first and then doctors. Whereas the "primary purpose for which students learn sciences, is to become physicians, not scientists." The literature of the several subjects that form the basis of medicine has become so extensive, that no man can keep abreast of it. Physiology, which is easily the most essential of all primary studies, has become so elaborate that it has suffered subdivision into three or more departments or professional chairs. There exist similar subdivisions in bacteriology, pathology, and anatomy. As each teacher declares himself incompetent to instruct outside his subdivision, how idle to attempt to make anatomists, physiologists, bacteriologists and pathologists, etc., of medical students. The time is not so very remote when a medical student could master all the primary branches of medicine. To-day it is not possible for him to master a single branch of the sciences that are connected with medicine, during his college course. The instruction given to medical students does not enable one student in a hundred, no matter how high the standing of the school may be, to say whether a throat culture is or is not diphtheria. For years American medical teaching has been dominated by the German plan of instruction. In certain quarters there is setting in a reaction. It is claimed that we have become guilty of a fetish-worship of laboratories in medical instruction and medical practice.

The great physician and surgeon must depend for his diagnosis upon the physical examination and the evidence he extracts, sifts, and weighs in the patient's history. Laboratory methods are of only occasional use, viz., to support or not support clinical findings. Within the last few years, physiological and pathological chemistry have assumed increasing importance in medical instruction, and would appear to be rapidly pushing, and possibly rightly so, all the other laboratory subjects into the background. It is hopelessly futile to attempt anything more than the most elementary teaching in the primary subjects of medicine to-day. The tried-out subjects of the ages, anatomy, physiology, and chemistry, should have preference as to the length of instruction hours. A student's most

precious possessions are his time, his vitality, and a clear mind at the age when the mind is most supple, its curiosity most alert, and its nature most impressionable. It is only by cutting down the time allotted to laboratory subjects that we will be able to find a place to instruct students in all the physical, mental, and nutritional forms of healing. It is high time that there was a readjustment of the programme, and a place, if not a professorship, given to these important subjects. Starling, in his preface to his "Physiology", has rightly said, "Until doctors know more about the physiology of nutrition, quacks will thrive and food faddists abound. Ignorance of physiology tends to make a medical man as credulous as his patients, and as easily beguiled by the specious "puffing of the advertising druggist." Some bold surgery is needed in the medical curriculum. At present it is clogged and strangled with too many subjects, and the malady is yearly increasing. This virtually amounts to a confiscation of the most plastic, receptive, and promising years of the student's life, by making him study subjects almost ulterior to the dominant purpose of his life. It is an academic crime to add more burden to the already overworked medical students, some of whom leave the college doors, now, with wrecked health. As the subjects become more intricate and complex, the teaching should become correspondingly more elementary. Medicine has nursed many of the sciences from infants to giants. Now, each one is able to set up a house of its own over which a full-time professor presides. They have emigrated into the land of pure sciences. In the reconstruction of the timetable, every hour added for a new subject should be cut off from the non-essential.

I am one of these who had the good fortune to serve, while a medical student, an apprenticeship under the guidance of an able practitioner, and I cannot get away from the thought that the time so spent was far more valuable to me than an internship in a hospital. The enormous increase in hospitals throughout the country makes it unnecessary for a recent graduate to be without an internship. However, there ought to be a choice between an internship and a year's apprenticeship with certain designated members of the profession.

A leading insurance company on this continent has found it profitable to pay its examiners a fee for an annual examination of each of its policy holders. The laity insure their barns, buildings, and their valuable stock against accident, and make periodic careful inspection and veterinary testing of these, and yet they will go from year to year without even thinking of subjecting them-

selves or their families to examination by a reputable physician, that incipency in ailment may be detected and remedied. Why should we resort to medical inspection of schools and neglect the yearly inspection of the adult citizens of the country. Let us try to hasten the day when no man shall think of exercising the right to withhold himself or his family from a yearly physical examination by a reputable physician, to determine any tendency to disease or the presence of disease itself. I am not blind to the fact that this innovation can lead to abuses, for it is impossible to eliminate at once from our profession the alarmist, the surgical tinker, and the obsessed drug giver.

In common with the profession in the republic to the south of us there are problems here affecting the public no less than the profession. These demand solution. Already there has been inaugurated at Washington, during the past month, a movement to establish a non-teaching college analogous to the Royal College of Surgeons of England, with the aim of giving higher degrees in surgery. The bearer of such a degree will have, from competent authorities, the stamp of approval declaring him capable of doing good surgery. American surgery, recognizing that their evils are likewise our evils, has most kindly invited well-known, reputable, Canadian surgeons to become founders with themselves of the projected college. Not only will this college demand of its graduates technical knowledge and operative skill, but above all, honesty and unquestionable moral character. A movement of this kind is intended to abolish needless and abusive surgery together with its invariably associated dichotomous fee. To do this effectually, those holding such degree must have public support and sympathy. Is not the time ripe when we should receive higher degrees in Canada, not from Great Britain and the United States, but from a Canadian institution, founded by the parliament of this Dominion preferably at Ottawa? The ambition of ninety-five per cent. of the recent graduates in medicine is to become surgeons, and in many cases, life's efforts are directed to this end. Matters have come to such a pass that the recent graduate thinks of disease only in surgical terms, the medical side is "a despised weed." We need competent medical men and competent obstetricians, just as badly as we need competent surgeons, that is, we need men in these departments who have the knowledge of specialists. There is too much tendency to accept mediocre attainment in the two former, and demand thorough attainment in the latter. Given a standard high degree in these subjects, along with publicity of their meaning, we

would find plenty in the profession who would put forth continued efforts at self education for their attainment. There is a dearth of competent men in many departments of medicine and an overcrowding of the profession with mediocre ability.

My duty to the profession and to the public would not be done did I not refer to the miserable medical fees common to some districts of this country. Once a fee becomes established in a community it is hard to raise it. In certain districts in England, the twopence and threepence fees still persisting, are relics of Henry the Eighth's time. A banker stating tersely the altered value of money said that in 1860, \$20,000 would yield in interest \$2,500 annually. This sum would go as far as \$6,000 for living expenses to-day; \$120,000 would be the amount of principal required to earn \$6,000 to-day. In other words, \$20,000 in 1860 yielded a living for which \$120,000 would be required to-day, one dollar being equal to six nowadays: "The labourer on the street has been quicker to grasp the altered value of money than your profession," said the banker, "and what is more, he has had, as a rule, the courage to demand his right to substantial increased wage." Through a failure to carry a campaign of education in favour of better medical fees, there has arisen a disproportion between medical and surgical fees which is largely responsible for fee splitting. One general practitioner gave an illustration in this way. He said he took Jenny B. to a surgeon for appendicular operation between attacks; the father paid the fee of one hundred dollars. Six months thereafter, he protested a bill of twenty dollars for attendance on his other daughter for a severe and prolonged attack of pneumonia. So long as there are miserable medical fees and this disproportion between medical and surgical ones, the fee splitting cannot be stamped out. There must be a good living wage for honest medical service, or members of our profession will fall into dishonest practices, and sink into the mire of dishonour itself. The righteous course for our profession to pursue is, while not distressing the deserving poor, to be careful not to put a premium on mere stinginess.

Medicine has made contribution to every calling in life. It is our high duty to go farther. We must not continue the silence of centuries any longer. We must educate the public in the scientific principles of medicine far enough to give them ground to judge in their true light the sophistries of the quack and the charlatan. The osteopathist, Christian scientist and chiropractor succeed with even the supposedly educated and intelligent, because they teach the public their theories of disease and healing. To tell a patient that his bile has become thickened and that the grooming he is

about to receive will make the bile more limpid, is an explanation not above his comprehension. What we must do is to educate the public till such an explanation will not be entertained. The greatest publicity should be given to the achievements of regular medicine since it became worthy of being a science. Should not every school-child know that through our profession the average length of human life has been doubled; that in the last twenty-five years, eight years have been added to the average length of life; that it is to our profession that every civilized nation looks to wipe out plagues and hold back and even arrest epidemics? We have given the widest publicity to vaccination against smallpox with happiest results. Why not give publicity to the equally valuable vaccination against typhoid fever? Our battle against tuberculosis has been a publicity campaign in which the laity has not only believed, but has actually joined with us in great force. The enlightenment of the public in this will render it impossible hereafter for the heartless quacks to thrive upon the ignorance of the consumptive victim. If the battle against cancer, the twin monster of tuberculosis, gains this publicity together with a similar sympathy and active support from the laity, our triumph over this disease is to be within the life of many in this room. Let us never grow tired of impressing the fact that it was the regular profession which discovered anaesthetics, abolishing pain and agony off and on the operation table, and that it will not be in the power of the human race in the future to duplicate a boon to humanity like antiseptic surgery. In spite of the fact that serum has cut the fatalities of diphtheria in half, in addition to putting into our possession the most potent agent against the spread of this dread disease of childhood, that the Spanish American Main has been swept clear of the yellow fever scourge, and that we have not only the cure for malaria, but also the power to wipe it off the face of the land, yet there are, both among the ignorant and intellectual, those who declare that medicine has made no advancement in one hundred years, and all this because we have not given the widest publicity to our achievements. In the expressed opinion of Lord Salisbury, medicine is the most exact and advanced of all the true sciences. It has rendered tributary to itself the knowledge of every walk in life.

In conclusion, while I have unflinchingly probed these festering sores on the surface of our professional body, I hasten to declare the heart of it to be sound and flawless, jetting out from its valves a fountain stream of all that is splendid in the history of science and humanity; matchless in progress, matchless in achievement, and matchless in future outlook.

ADDRESS IN SURGERY *

FRACTURES AND THEIR TREATMENT

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IT is a great privilege to be permitted to read an address on surgery at the annual meeting of the Canadian Medical Association. When your president, influenced largely, I think, by kindly feelings towards myself, invited me to read the address, in a moment of vanity I consented, and since then I have felt the responsibility more and more as the time of the meeting approached. I wish therefore to express my appreciation.

In the choice of a subject, I have been influenced largely by the fact that during the past few years, more especially since the introduction of radiography, the subject of fractures and their treatment, is, perhaps, of more general interest to the members of this association, than many other subjects which might have been considered.

Time will not permit me to go into details as to the particular treatment of a particular fracture. My object is rather to consider the subject as a whole, and to make a brief review of the various methods in use, presenting a few of my own observations gathered from twenty-two years' experience as a surgeon and assistant surgeon to the Montreal General Hospital, which institution, from its situation in the centre of the largest city in our country, and within half a mile of the head of ocean navigation, has perhaps, the richest clinic in fractures in Canada.

It has been stated that in the midst of all the wonderful advances in medicine during the past thirty years, and more especially in the advances in the surgical treatment of diseases, our knowledge and treatment of fractures is much as it was in pre-Listerian days.

An exception is admitted in the treatment of compound fractures. The work of Sir William Macewan, in Scotland, Sir Arbuthnot Lane, in England, and J. B. Murphy on this continent, during the

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past ten years, however, has drawn the attention of the profession to this subject, with the result that many radical changes have taken place, not only in our knowledge of bone regeneration and repair, but also in our treatment.

How far the introduction of radiography is responsible for the change it is difficult to say. It has at least added enormously to our knowledge and precision. In a brief review of the subject it is necessary to deal first with:

Repair.

It was formerly held that the periosteum was the most important tissue and that largely from it bone repair took place. Our treatment, therefore, consisted largely in attempts to cover divided portions of bone with its periostial envelop. Where disease or injury to bone resulted in destruction of the periosteum and uncovering of the bone, we were taught to expect death of the bone at least in part. It is clearly demonstrated, largely through the experimental work of Macewan, that the periosteum itself cannot reproduce bone, and it acts as a mould, guiding and controlling new growth.

It has been a common clinical experience to find little or no callus thrown out over that portion of a fracture protected with untorn periosteum, or where a splint or other support pressed uniformly against a fracture with torn periosteum, and that in the same fracture with extensive laceration and destruction of periosteum, producing large gaps, extensive, excessive, and irregular callus developed. Thus we learned the well known rule of the carpenter, "the thinner the layer of glue the stronger the join," and efforts were carried out to limit and control excessive callus formation.

Our present knowledge of repair of bone may be briefly summed up as follows:

Hæmorrhage, which is always present to a greater or less extent.

Inflammatory exudate of leucocytes, serum, and fibrin.

Proliferation of bone cells of osteo-genetic power (osteoblasts).

Formation of a matrix of proliferating blood vessels carrying osteoblasts.

Osteoblasts once formed proliferate rapidly, lime salts become deposited and new bone is formed.

During this process large cells, derived also from the bone cells appear, called osteoclasts, which have the power of destroying bone, thus removing unnecessary callus.

These changes vary in individuals in accordance with varying conditions of health, and show greatest activity in the young. Thus we have great regenerative power in the young. Conversely, in older individuals, proliferation is less marked and the osteogenic cells more rapidly perform their evolution and become complete bone; proliferation ceasing before complete repair of a destroyed portion of bone has taken place. Hence delayed, incomplete, and frequently non-union results.

While bone grows principally from epiphyseal cartilages, after their artificial removal, osteoblasts from the diaphysis in a measure fill the space, and while the process greatly lessens diaphyseal growth it does not entirely cease.

The thanks of the profession are due to the British Medical Association for the report on the treatment of simple fractures recently published. This report has done much to remove many misconceptions, and I am glad to notice among its findings, that the non-operative treatment of fracture in children under fifteen years gives a high percentage of good results. Also that in children, with the exception of fractures of the forearm, open operation does not give better results than the non-operative.

Sufficient time has not yet elapsed since the publication of this report to allow a proper appreciation of all its findings. Much valuable knowledge, however, has been put before the profession. We may look forward with interest to the investigation of the American Surgical Association, the preliminary report of which was recently read at Washington by Dr. J. B. Roberts, chairman of the committee.

We may divide the treatment of fractures into four general groups:

1. Fixation with splints. Rest.
2. Fixation with splints and extension by weights as advocated by Buck many years ago, and also during recent times by Bardenheuer.
3. Ambulatory, mobilization, and massage.
4. Operative or open method.

From these various methods it is difficult to choose, but it is well to keep in mind their usefulness as adapted to the special features of a given fracture. Versatility is the successful instrument, and, for the average practitioner, no one plan should be adopted for routine practice; in fact routine practice may be said to be the cause of most of our failures. At the same time it should be the aim of each man to adopt a definite scheme of treatment and carry

out its details sufficiently in each case to familiarize himself with its advantages and disadvantages.

Those of us who have had much to do with fractures become familiar with a certain line of procedure and gain a certain technique that may bring good results to us, which, when applied by others, may result in disaster. It cannot be too strongly stated that for the man who sees only an occasional fracture the simplest form of splint, and rest combined with extension for certain fractures, will give the best results.

Splints and Rest.

This is the oldest form of treatment of fractures, and it is very accurately described in the earliest Egyptian medical records. The simplest forms are those made of a thin board, moulded plaster of Paris and poroplastic felt. As a rule, moulded splints, sold in sets for special fractures, are objectionable. Experience is required to apply them accurately and, in the absence of the proper size, one is very apt to use the next available size, which may or may not fit the case. Moulded plaster of Paris, in the form of the Bavarian dressing, requires some experience to apply, but is a very desirable splint when accurately adjusted to the injured part. Poroplastic felt is an excellent, although somewhat expensive material and is very easily moulded.

It is hardly necessary to point out the advantages of the use of such splints, chief of which is, that it enables one readily to expose the parts and replace them without discomfort to the patient, and at a cost of an additional strip of adhesive plaster or a bandage.

This method, combined with extension by weights, is perhaps the safest and more useful form of dressing for fractures of the long bones more particularly of the femur, and I know of no better apparatus than Bucks' extension with coaptation splints and a long Liston splint. The dressing, while comfortable to the patient, necessitates almost daily attention as the rapid atrophy of the thigh muscles requires that the coaptation splints be frequently tightened. As a rule sufficient weight is not applied. For an ordinary adult about ten pounds should be applied at first, rapidly increasing until spasm of the muscles has been completely overcome. This requires from four to eight days, and the weights can be increased up to thirty pounds. The weights need not be kept on continuously if the patient suffers from pain.

Coaptation splints should also be removed from time to time to allow of massage of the limb, and more particularly gentle move-

ment of the knee joint. After the spasm has been once controlled, the weights can be diminished. Care should be taken as has been frequently pointed out, that the splints should not be applied so firmly as to interfere seriously with circulation. In fractures of the shaft of the humerus, occasionally weights are required, but as a rule if the patient is allowed up every day, and the supporting sling is kept well down to the wrist and not near the elbow, the weight of the dressings and the limb, is sufficient to give the necessary extension.

Ambulatory.

I have had little experience with the ambulatory method in the treatment of fractures of the lower limbs. Their use requires very considerable experience. While the advantage to the patient of being able to be about and in the open air is undoubted, the control of the patient, and of his apparatus, requires more attention than is usually possible outside of hospital practice. My own practice is to get all patients, excepting those suffering from fracture of the femur, out of bed at the earliest date, while the patient is still in the fixation apparatus.

Bardenheuer Method.

This method, advocated many years ago by the great German surgeon, has many advantages, more particularly for those who have had an extensive experience. The apparatus is only comfortable when properly fitted and requires constant attention. When one has familiarized himself with the details, the treatment is an excellent one, and gives good results. However, it should not be used by a beginner. One great advantage of this method is, that the damaged limb is more or less exposed and the apparatus permits of lateral as well as rotatory traction, and Bardenheuer lays great stress upon the importance of taking advantage of this.

As a hospital man I should like to point out a not uncommon practice which has nothing to commend it, that of immediately replacing the displaced fragments of bone in cases of recent fracture, and applying an elaborate fixation apparatus, such as a plaster of Paris dressing in cases which are immediately to be moved to a distant place, and where the patient will come under the care of another practitioner. Such cases seen as an emergency should be put up in the simplest form of dressing, and the patient should be told that the dressing is of a temporary character. It is well to

supply a letter addressed to the physician who is expected to take subsequent care of the case, explaining what has been done.

Many instances have come under my notice where an elaborate dressing, such as I have described, has been applied, the patient departing at once and coming under the care of another practitioner. Often the second practitioner has not the moral courage to cut down the plaster of Paris dressing; he therefore assumes all the responsibility of the case, and is certain to come into whatever censure may occur, without really having had anything to do with the actual replacement of the fragments and application of fixation apparatus. The laity should be taught that it is a fallacy to suppose that the so-called setting of a fracture should occur at once after an injury, without regard for the surrounding circumstances. It has been our common experience that many fractures are discharged with good alignment and apparently firm union, which seen many months later show marked angular deformity. While it is difficult to control the actions of patients, who have apparently fully recovered, more particularly those cases which are discharged from the public wards of the hospital and pass completely from the observation of the attending surgeon, we have perhaps not taken sufficient steps to protect our own reputations. All such cases should be kept as long as possible under observation, or until good bony union has taken place.

The old fashioned method of using a bedroom pillow supplemented with strips of board on either side is still an excellent dressing, especially in fractures of the leg. Plaster of Paris dressings are difficult to properly adjust, and should never be used until one has acquired considerable skill in their application. In my opinion there are certain parts of the body where plaster of Paris should never be used except by surgical experts, that is, in fractures of the shaft of the humerus and femur, and in obscure injuries about the elbow and knee joints.

Mobilization, and Massage.

We owe very much to the French surgeon, Lucas Championnière, and while very few English-speaking surgeons have been daring enough to carry out his practice in detail, I think we have all appreciated the value of massage and frequent inspection of the injured limb, while at the same time using some definite fixation apparatus. Lucas Championnière has again and again drawn our attention to the fact, which I think had been previously mentioned by Thomas, of Liverpool, that too rigid fixation diminishes repara-

tive bone production, damages the soft parts and stiffens the joints and tendons, so that the patient when at last freed from his dressings, suffers more in recovering the use of muscles and joints than from any other cause. The originator of this method has pointed out that the massage must be gentle and never carried to a point of producing pain.

Against this method, however, there can be little doubt that the early recovery which has been claimed for it is often at the expense of anatomical deformity. We must, however, always appreciate that to Lucas Campionnière, more than any one man, we must acknowledge our thanks for the introduction of the combined methods now so universal on this continent.

The method of extension by the use of nails and traction apparatus, suggested by Steinman, and also the methods of Lambotte, of introducing pegs united to a frame held outside the wound, has very serious objections. The danger of an open wound through which is introduced a foreign object to the centre of a long bone, leaves a wide open door for infection.

Operative or Open Method.

No subject in surgery is engaging the attention of the profession at the present time more than the operative treatment of fractures, and before proceeding to discuss this method I will draw your attention to the following very important sections of the British Medical Association report:

Section 10. "It is necessary to insist that the operative treatment of fractures requires special skill and experience and such facilities and surroundings as will ensure asepsis, it is therefore not a method to be undertaken except by those who have constant practice and experience in such surgical procedures."

Section 11. "A considerable proportion of the failures of operative treatment are due to infection of the wound, a possibility which may occur even with the best technique."

Section 12. "The mortality directly due to the operative treatment of simple fractures of the long bones has been found to be so small that it cannot be urged as a sufficient reason against operative treatment."

Section 13. "For surgeons and practitioners who are unable to avail themselves of the operative method the non-operative procedures are likely to remain for sometime yet the more safe and serviceable."

All operative procedures are becoming easier to an increasingly

large proportion of our profession doing surgery, and the probability is that this applies also to the operative treatment of fractures. Mr. Robert Jones, of Liverpool, very tersely states "that the indications for operation will clearly differ from the individual standpoint of the surgeon and no rules can be laid down. The surgeon with the least mechanical resource will operate most frequently." Those who have seen Lane operate might be led to believe that the proceeding is a simple one, but this is not so; as many of you are aware, Sir Arbuthnot Lane has developed a technique and dexterity which perhaps is unequalled, therefore it follows that the proceeding is a rational one for him to carry out.

Personally I have had an open mind, and my practice has been to operate on cases which I was unable to reduce or retain in good position, more particularly in fractures in the upper part of the humerus, upper part of the femur, both bones of the forearm and in spiral and oblique fractures of the tibia. My experience has been that the open method is a most satisfactory proceeding, and each operation becomes simpler to perform than the last. No one should operate without having a full supply of the heavy holding forceps, originally suggested by Lane and of which there are now a number of different types. The practice of Mr. Jones should also be kept in mind, that of keeping up extension by pulleys during the operation. A combination of these two measures makes the operation much easier.

The length of time for repair is undoubtedly longer, and each patient should be especially warned that the early mobility of the limb is due to the introduction of plates and not to bony union, so that such cases should be kept under observation for a longer period and external supporting apparatus should constantly be used. One case recently under my care has been very instructive, although the point is not new, having been referred to a number of times by others. A plate was applied to a fracture in the lower third of the tibia, and the patient discharged in a long plaster case. He returned once a month, the cast was removed and at first there was no movement; later, there was a little definite movement. An *x*-ray showed a rarification of the bone in the neighbourhood of the top screw. I cut down and found the plate was almost embedded in new bone; the top screw was loose. I removed the plate and screws and put the patient in a new plaster cast; he returned in a month and had good firm union. This was a case where apparently the mobility, as suggested by Lucas Championnière, had finally resulted in union.

In the treatment of compound fractures I have found that the use of a plate or wrapping the bone in wires is of great value, but when such a proceeding is carried out the plate is only put in for the first few weeks to control the parts and must invariably be removed before the wound will, or is allowed to close. I have made it a practice in all cases of carrying out Lane's suggestion of covering the plate with muscle, fascia, or fat, and in one or two cases where this was not completely done, or where the parts tore away later, I found that I was obliged to remove the plate; in short the plate should never be allowed to lie exposed immediately below the subcutaneous tissue.

The Committee of the American Surgical Association, in considering the British report, points out that all methods of non-operative treatment have been grouped together in a comparison, and considers that a true estimate of the value of the non-operative method should include a classification to the end that the best non-operative treatment could be laid before the profession. In this view I am in hearty accord, as I take it that the object of both reports is to place in the hands of the average man the most desirable method of treating non-operative cases.

The American report further points out that, on this continent, the usual treatment is not limited definitely to a fixed plan, but is a combination of several methods. The committee, therefore, in its primary report, believes that prolonged immobility with continued fixation by means of external splints, or apparatus, should be abandoned, and recommends that the treatment should depend upon three classes of practitioners:

1. The average general practitioner, unskilled in surgery as a specialty.
2. Surgeons with the usual facilities of small or cottage hospitals.
3. Surgical experts with adequate hospital facilities.

For the first they recommend the mixed method which is practically in use with most of us, laying stress on the importance of a general anæsthesia for diagnosis as well as reduction, combined with the use of an x-ray. For the second class the report suggests that the operative treatment be restricted to especially rebellious fractures after the case has been watched for a few days. For the third group, early operation in all cases which cannot be properly reduced and maintained in good position.

Dr. Roberts has associated with him men of wide experience in the care of fractures and the final report will undoubtedly be a guide of great value.

In doing my first open operation for fracture of the patella many years ago, I was surprised to find the amount of hæmorrhage and damage to the neighbouring soft parts. Since doing the open method on apparently simple fractures of long bones, I have marvelled at the good results obtained in non-operative treatment in view of the extensive laceration of the soft parts, and the interposition of muscles and other tissues.

Radiography.

The value of the discovery of the *x*-rays in the diagnosis of fractures was early recognized, and it is hardly necessary at this date to refer to the great aid that has been given, not only in the diagnosis of the fracture, but as a guide to satisfactory treatment. It should be remembered, however, that many factors enter into the consideration of a given case. Two plates, one antero-posterior and one lateral, should invariably be used. The diagnosis should not be limited to an examination of the plates but a careful examination of the injured limb should always be made. A second fracture in the same bone or a fracture of a neighbouring long bone at a higher level may be present although not shown in the plate.

The possibilities for distortion in a given case depend upon the position of the fracture and the experience of the *x*-ray operator. The importance of this has not been properly appreciated, more particularly by general practitioners. Distortion of displacement is always present in fractures of the long bones and in fractures of the pelvis.

The public has much to learn in regard to *x*-ray distortion and it is difficult to know what our position should be in regard to showing plates to patients and their friends. These persons expect to see the plate and yet are not sufficiently experienced to appreciate the various conditions which exist in a given case. The impression is therefore left that the fractured bones may not be in good position, when in reality they are.

While it is quite possible to continue the treatment of fractures as in the past without the aid of *x*-rays, the general practitioner should not undertake the care of obscure fractures, more particularly those involving joints, without at least giving his patient the opportunity of going to some neighbouring point where the use of an *x*-ray plate may be obtained. I, in common with others, have had a number of instances where acute synovitis has masked the presence of an important fracture. Only recently a case came under my observation, where the patient was unable to walk or to straighten out his limb some months after a fall which produced a

severe synovitis of the knee joint. X-ray demonstrated the presence of an impacted fracture involving the articular surface of the tibia. I opened the joint and found a knob of callus in the centre of the joint displacing the semi-lunar cartilage, the knob was chiselled off and the cartilage removed.

Medico-Legal Aspects.

It is unfortunate that fractures have always been the source of much medico-legal anxiety to our profession. This has been made greater with the introduction of the use of x-rays. The time has come, I think, when this Association could quite properly investigate our position in regard to the courts and our patients, to the end that some definite legal method, fair to all parties, could be introduced into our court procedures. The situation could hardly be worse than at the present time where x-ray plates of fractures are passed about the court and interpretations taken therefrom, not only by the court, but by lawyers, jurymen, and others; this without any effort being made to have the meaning of the plate explained by medical men competent to offer such information. As long ago as May, 1900, a report of the American Surgical Association stated that, "Skiagraphs alone without expert surgical interpretation are generally useless and frequently misleading."

Dr. J. B. Murphy recently reported a dislocation of the shoulder joint where the head of the humerus was behind the glenoid fossae, yet the x-ray showed normal position. In a United States court recently a medical man was held responsible in damages to a large amount, not because the deformity resulting from a fracture was due to lack of skill, but because there was deformity, and the medical man had not recommended the use of an x-ray, although there was no x-ray apparatus in the town.

There is also the question of ethics to be solved. How far a medical man engaged in the practice of radiography is within his rights in selling plates showing fractures which have been under the care of other medical men without these medical men being consulted.

The development of workmen's compensation acts in our own, and other countries, where employers are responsible for the payment of compensation for injuries, makes the whole subject of fractures of greater interest than at any time in our history, and if the time has not yet come for defining our responsibilities it must be close at hand, and I trust this Association will not be behind other organizations in laying before the profession and the public the best means available for the treatment of fractures.

CONGENITAL HYPERTROPHIC PYLORIC
STENOSIS

BY ROBERT E. McKECHNIE, M.D., C.M.

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I HARDLY think an excuse is needed for presenting this subject before this meeting, for although the condition is well recognised, and the majority of those present may think that nothing new will be offered, yet I affirm that in general practice it is too often lost sight of. And losing sight of the subject causes a yearly loss of many infant lives, which could be readily saved, with appropriate treatment.

To refresh your memory, I will briefly recapitulate our knowledge. It was not until 1888 that Hirschspring published an article which definitely described the disease. Not that it was a new disease, any more than appendicitis, whose history is also only too recent, but the condition had been overlooked. And, following Hirschspring's paper, the condition has gradually become more widely known and recognised, till now it is an established entity. That much having been attained, it has had to run the sequence of medical treatment with an appalling mortality, and more recently, surgical treatment, with daily more gratifying results.

The patients are in about 80 per cent. of cases males, and about 50 per cent. firstborn. The symptoms rarely begin at birth, the picture being that of a healthy, well developed male child, who probably takes his nourishment well for from two to four weeks, when symptoms of obstruction begin.

Vomiting is the first thing complained of, and with that there is a lessening of the excreta. Later on the vomitus will measure about what has been taken in, while the faeces will be represented by a meconium-like mass, perhaps not over a dram at a time. The vomiting does not suggest a gastritis. Sometimes the food is ejected shortly after a feeding, but sometimes it may accumulate until quite a quantity has collected. The stomach becomes dilated and visible peristalsis will be noted. In one of my cases, careful measurements made of the liquids given and ejected during some three days, showed only a dram or so difference during each day

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between the food and the vomitus. As the stools were dark green from bile and no bile showed in the vomitus, it was at once evident that the obstruction was above the point of entrance of the bile.

Progressive loss of weight must of necessity set in, not accompanied by cachexia. The child simply looks starved and, until *in extremis*, remains quite bright.

While inspecting the abdomen, and noting the peristalsis, one can readily note the effects of the obstruction, the full stomach and the empty bowels. The bulging of the upper abdomen and the flattening of the lower half cannot be missed.

In addition to the foregoing, the picture is completed by the finding of a small tumour in the region of the pylorus. This feels like a small gland, is hard and movable, is smooth, of cartilaginous hardness, and about the size and shape of a very small olive, although some are slightly curved and may be larger at one end than the other. As before noted it is freely movable, there being no adhesions. Microscopically, the tumour is caused mainly by an increase in number of the circular muscle fibres, the individual fibres also showing an increase in diameter. In addition there is a slight increase in the longitudinal muscle fibres and the submucous and mucous layers.

As to what causes this development there are two theories, each of which has its advocates. One theory is that it is a congenital malformation; the other, that it is a hypertrophy due to overwork, the consequence of long-continued spastic contractions. The long-continued spastic contractions are also theoretical. Some claimed that they were due to hyperacidity of the gastric contents, but Cameron, in an article in 1907 in the *American Journal of Physiology*, shows that acid on the gastric side of the pylorus causes it to relax; and other observers claim that the gastric contents in these cases are not hyperacid. One of my cases was undoubtedly born with this condition, which makes me believe the condition a malformation. This would do away with the theory that the chemical constituents of the functioning stomach provoke the hypertrophy in the first instance. But as the great majority of cases develop their symptoms from the second to the fourth week, one can readily imagine that the infant was born with a hypertrophied pylorus, whose lumen was sufficiently large in the early weeks to permit the passage of the food, but that some irritating agent so provoked the tissues, through causing excessive contractions, as to augment the growth and lead to closure.

However, these are only theories. What we do know is that

we have a definite hypertrophy of the pyloric muscle, progressive in character, which in the majority of cases causes complete obstruction and results fatally unless relieved.

This statement may seem too sweeping, in the light of the statistics published by those who have employed the medical treatment. In the Schorstein Lecture, 1910, by Robert Hutchison, published in the *British Medical Journal*, are quoted nineteen recoveries out of twenty-one cases, eleven out of twelve, and thirty out of thirty-two, with medical treatment, but I do not think we can find similarly favorable results furnished by the American practitioners. And even among the English writers we find the adoption of medical treatment discouraged. Thus at a meeting of the Royal Society of Medicine, Section for Study of the Diseases of Children, a specimen was shown from a case which had died from the condition we are discussing. Dr. Cantley, the chairman, remarked that it was a good illustration of one of the usual results of attempting to cure the condition by medical means; and that there were still many people who supported the view that a cure could be obtained by that means. And Mr. Lockhart Mummery said that these cases must be operated upon at the earliest opportunity if there was to be any chance of saving the child's life; delay was fatal.

Turning to a great American authority, we find Scudder, of Boston, in an article in *Surgery, Gynecology and Obstetrics* in September, 1910, stating, "The prognosis in the case of pyloric tumour is bad, unless surgical measures for the relief of the obstruction are employed Certain cases of pyloric spasm, without tumour formation, recover under medical treatment. If the diagnosis can be made of a pyloric tumour causing obstruction, the earlier operation is performed the safer it will be for the baby concerned." In another article in the same journal in April, 1912, he states that the mortality of the expectant medical treatment is between 80 and 90 per cent., while he quotes a series with one death in ten cases, Richter's series with one in nine, and his own with one in fourteen, when surgical treatment was adopted. He ends by saying, "Gentlemen, in view of the evidence, I believe that surgical measures should be instituted as soon as the diagnosis of congenital pyloric stenosis is made. Delay is dangerous, etc."

My own cases, which are six in number, I will but briefly review.

CASE 1 was a male, firstborn, and breast fed at first, changing at three and a half weeks, when symptoms developed, to artificial

feeding. I was called in at the seventh week, when the child was almost *in extremis*. The consulting physician still wished a few days longer feeding by the usual methods of lavage and feeding. However, after two days delay I operated, finding a well developed tumour of the pylorus. Although examined for before the operation, we could not be sure that we felt it, but as I have found them since, I think it was palpable, but that lack of previous experience prevented us making a positive diagnosis. All the other classic symptoms were present. A posterior gastro-jejunosomy was performed, as in all the other cases. The patient lived but a few hours, dying in convulsions.

CASE 2, a male and firstborn, was normal until four weeks old, when symptoms of obstruction gradually developed, vomiting, lessening of the amount of fæces, etc., until the obstruction became complete. A tumour was palpable, the stomach was dilated and peristalsis was marked. I was called in by Dr. Martin, of North Vancouver, who had the case diagnosed for me, and I operated, the child being within two days of two months old. He made a good recovery and is now a larger and stronger child than his twin sister.

CASE 3 was a breast-fed male, firstborn, also in the practice of Dr. Martin, and occurred about eight months after the other. Dr. Martin has this case very clearly worked up, showing that symptoms began two weeks after birth, that weight steadily diminished, that by the third week vomitus about equalled ingesta, that the stomach was dilated and a tumour palpable. I operated when the child was three and a half weeks old. It made an uninterrupted recovery and began to gain in weight at once.

CASE 4, a male, firstborn, occurred in the practice of Dr. Casselman, of Vancouver, and its recognition was the direct result of a case reported by Dr. Dier, of North Vancouver, a patient in his practice. Within a week Dr. Casselman ran across this case and diagnosed it, which makes me believe that the result of the reading of this paper will be that there will be an increase among you in the cases discovered. This case had the classic symptoms, including the tumour. But the most interesting point is that this was a true congenital case. The mother said that there had not been a sign of food in the stools and the vomiting had begun at birth. When I saw it, the napkins shown me had little better than smears of meconium-like material on them. The mother had not sent for medical assistance on account of the vomiting, which she seemed to think was regurgitation from over-nursing, but because she could not get

its bowels to move. I operated when the child was four weeks and two days old. It made a good recovery.

CASE 5 was also a male and firstborn. It was in the practice of Dr. Carder, of Vancouver, who had diagnosed it before calling me in, in consultation. This case also presented the classic picture including the tumour, was breast-fed, and a few days after the operation resumed nursing. It made a good recovery.

CASE 6 was also a male and firstborn. Symptoms began to develop about the end of the third week and slowly became aggravated. Although the case was diagnosed by the attending physician, Dr. W. C. McKechnie, medical treatment was persisted in, as consent to the operation could not be obtained. Remissions of the symptoms of obstruction occurred, sufficient to give hope that the operation would not be necessary, but at the end of seven weeks I operated by the usual method. The child stood the operation very well and progressed favourably for three days, and then died rather suddenly. Not having obtained an autopsy, I cannot give the cause. In this case no tumour could be palpable, not even under an anæsthetic, but it was found at the operation, hidden under rather a large liver. This bears out Scudder's advice, to operate in cases where no tumour can be felt, if the symptoms of obstruction persist and the child is losing weight, for the tumour may be there although not palpable.

To recapitulate, all six cases were males and firstborn children. The latest date for the commencement of the symptoms was the fourth week. The tumour was present in all, readily felt in four cases, doubtful in one, and not to be felt in the last on account of its position under a large liver. Four cases were successful, two failures. But the failures, as failures often do, can teach us a lesson. These were the only cases whose vitality had been excessively exhausted by prolonged attempts at medical treatment, and merely emphasize the dictum of Scudder, "the earlier the operation is performed, the safer it will be for the baby concerned."

As we are all greatly influenced by something tangible, anything which will tend to make the tumour more palpable, will tend to hasten the operation. The doctor himself will feel more confident to recommend operation, and the parents will more readily consent, if they know a tumour is present. Hence, in cases where it cannot be felt, an anæsthetic should be given. A still simpler method is to put the baby in a warm bath. This will cause muscular relaxation and the tumour can then readily be palpated.

In the after-treatment, I place the patient in a semi-Fowler's

position, not so much for drainage of the stomach as to prevent the jejunum being bunched under the stomach, and adhesions forming due to the handling the bowel has received, and these adhesions interfering with function. In addition I follow another rule which I practise with adults, not to give milk early. Curds are apt to form and block the anastomotic opening. Hence I start with whey in babies, increasing to whey and barley water and later on to milk.

THE sum of \$500,000 has been given by Mr. John D. Rockefeller to the Rockefeller Institute for medical research, for the purpose of providing pensions for members and association members of the Institute. Members who retire at the age of sixty after fifteen or more years of service, will receive pensions of from one-half to three-quarters of full pay, according to the length of service; those who retire at the age of sixty-five will receive three-quarters-pay pensions. Members who are totally disabled after ten years of service, and widows and orphaned children, will receive pensions of one-half of these amounts.

SOME REMARKS ON ENDOCARDITIS IN INFLUENZA: REPORT OF A CASE

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LOOKING over the literature of the past on this subject one is struck with the scarcity of information available. It seems rather strange that a disease so prevalent, which attacks not infrequently the pericardium and myocardium, should be found to attack so seldom the endocardium.

Reports of cases are not wanting, but they are few. Jehler reports two cases in which he recovered influenza bacilli from growths on the valves—once in pure culture, the other time in company with the staphylococcus. Flexner² reports two cases in which he recovered the bacilli from the valves *post mortem*—both being cases of acute endocarditis developing on a chronic endocarditis, rheumatic in origin, of the aortic and mitral valves. In his cases, influenza was not suspected during life and was only discovered by the routine examination at autopsy. Both ran a rapidly fatal course; both, one aged thirty-six and the other an old man, had previous aortic and mitral involvement, in the former case following an attack of acute rheumatism at twenty, in the latter, three attacks at different intervals. The endocardium shewed sclerotic changes involving both the aortic and mitral valves and also recent changes, vegetations being particularly noticeable at the valve edges, with some on the surfaces of the valves, some on the wall of the auricle, the ventricle, and chordæ tendineæ. Horder³ reports two cases in which, during the attack, he recovered influenza bacilli from the blood.

There is, up to the present, the report of two investigators, Porri and DeVecchi⁴, only, of experimental work in regard to the effect of the influenza bacillus on the endocardium. Porri experimented with rabbits, injecting into the blood stream either living bacilli in sterile salt solution, or dead bacilli, and their toxins produced after several days, growth on bouillon, making the valves more susceptible to the action of the bacilli or their toxins by adding to the solution in either case, before inoculation, either adrenalin or charcoal powder. As a result he obtained a true endocarditis

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with valve changes, vegetations being particularly prominent at the valve edges.

Another investigator, Perez⁵, produced with living cultures of influenza bacilli, surgical complications, purulent pericarditis, myocarditis and peritonitis, but makes no mention of endocarditis. Porriani saw none of these latter results, giving as a reason the fact that he used smaller doses of the bacilli and accompanied the dose in each case with adrenalin or charcoal powder.

Attention was directed to the possibility of an endocarditis, influenzal in origin, through a case which occurred in practice during the past winter.

CASE: D. T., æt. 11.

Previous illnesses: None.

Present illness: A younger sister, the father and a younger brother each had gripe in succession, the attack in each case lasting about three days, with complete recovery in a week. This patient developed gripe after the younger brother, on February 3rd, just as the latter was getting over his attack, was ill on February 3rd, 4th and 5th with fever, headache, prostration and all the symptoms of gripe. She recovered slowly and was out of school until the February 10th, returned to school on the 14th, but did not feel well; on the 15th, after skating, felt chilly, continued "not well, just tired out" as she said, on the 16th, 17th and 18th; tried school again on the 19th, but went only the half day, she felt so ill. On the 20th, 21st and 22nd, she was feverish and prostrated. I saw her on the February 23rd, when her only complaint was that she was "very sick."

On the 16th the baby, and on the 20th the younger brother mentioned above, developed otitis media.

Examination.—Temperature, 102.4 F., pulse 120 and regular, face flushed and tongue coated and swollen, speech thick, mouth ulcerated. Heart slightly dilated, faint systolic mitral murmur. Leukocytes, 16,000 per c.mm. The other systems shewed nothing abnormal on examination.

February 24th, 1913. Temperature 104, pulse 130. Murmur very distinct, heart still slightly dilated. No other change in condition.

February 25th. Temperature normal in the evening, pulse 84. Murmur rougher and louder; patient brighter, speech more distinct, tongue not so thick, mouth in better condition.

The treatment employed was as follows: absolute rest in bed, restricted diet, abundance of water to drink, free purgation at the

outset and an occasional cathartic thereafter; aspirin and quinine, hydrobromate in suitable doses till the temperature reached normal, which occurred in two days. *Progress*,—the heart gradually returned to normal size by March 5th, the pulse slowed down to 65, but the rough, harsh systolic murmur at the mitral persisted.

Recovery was uneventful, but the heart continued irritable and weak, the patient getting short of breath and the pulse rapid on the slightest exertion, and she was allowed out of bed only at the end of six weeks. The rough murmur at the apex persisted and still remains, leaving no doubt as to the existence of an endocarditis, and also no doubt as to considerable injury to the myocardium, as indicated by the condition of the pulse and respiration on the slightest exertion.

(Lord⁶)—"Influenza is so seldom followed by permanent cardiac disturbances that it is not usually held responsible for cardiac disease. It seems, however, that it is not as blameless as is commonly believed. More recent observations on the bacteriology of the disease shew that influenza bacilli not infrequently invade the blood stream, especially in severe attacks."

Whether in the case reported the influenza bacilli or their toxins, or both, directly affected the valve, or whether they injured the valve, producing a good soil for the growth of any other organisms that might be floating in the blood, cannot be said. On what day between the onset of the disease on February 3rd and February 23rd, when the patient was first seen, the endocarditis began is not certain. The case seemed unusual and of interest, hence the report thereof, and this brief review of the information available on this subject.

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THE RESPONSIBILITY FOR THE ADVANCED CASE OF TUBERCULOSIS

BY C. H. VROOMAN, M.D., C.M.

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IT is only during the past ten years that in Canada there has been an active anti-tuberculosis campaign. At a recent meeting of the Canadian Anti-Tuberculosis Association, it was pointed out with well deserved pride, that whereas ten years ago there was in Canada only one special institution for the treatment of tuberculosis, with accommodation for less than one hundred cases, there are now over twenty institutions, with accommodation for over one thousand. Ten years ago there were no dispensaries or visiting nurses, now there are over a dozen dispensaries, and visiting nurses in many of the towns and cities throughout the Dominion. The melancholy fact still remains that last year there died in Canada from tuberculosis approximately eight thousand persons: and taking the usual proportion of five living cases to every death, there are at present in Canada about forty thousand cases of tuberculosis. It is quite true that our death rate is no higher than that of most other civilised countries, in fact is lower than some, yet why should Canada, a prosperous and growing country, with practically no pauperism, with new and modern cities, in which all the latest sanitary building laws should be observed, show this appalling death rate from a preventable disease? Statistics of the province of Quebec show that during the eleven years, 1896 to 1906, the deaths from tuberculosis numbered 33,190, while the deaths from the other infectious diseases, diphtheria, typhoid, measles, scarlet fever, and small-pox, combined, totalled 24,615. Here is a preventable disease killing more than all other diseases of a common and infectious nature combined, and yet we have provided a paltry accommodation of one thousand beds for forty thousand cases, and except in a few of our larger cities, there is no well organised attempt to prevent it.

Before discussing the general problem further I would like to draw attention to some facts that have come under my observation at Tranquille Sanatorium during the last year and a half.

I do not think that my experience has been exceptional, in fact I am sure it could be duplicated in any province in Canada.

TABLE 1.—CLASSIFICATION OF 200 CONSECUTIVE CASES.

Non-tuberculous.....	4 cases	2 per cent.
Incipient.....	37 "	18.5 " "
Moderately advanced.....	45 "	22.5 " "
Far advanced.....	114 "	57 " "

Table 1 shows a classification of two hundred consecutive cases. During the greater part of the period represented, we did not refuse any case of tuberculosis that applied, as it was decided by our board somewhat over a year ago to accept advanced cases, and accommodate them at a separate building. The proportion of advanced cases would have been still larger if our accommodation had been adequate, as during part of the time we had as many as twenty on our waiting list, practically all advanced.

Who then is responsible for this large proportion of advanced cases: so advanced that there is little probability of cure when they first apply for relief? After discounting all causes such as neglect to apply for advice, or inattention to proper advice, or acute onset of the disease, I should estimate that at least fifty per cent. of these cases became advanced because some general practitioner who saw them in the early stages failed to make the diagnosis, or even if suspecting the proper diagnosis, failed to recognise the serious significance of the symptoms, and gave most improper advice.

Let me give some illustrative cases:—CASE 1. Patient had hæmoptysis in March, 1909, and was in bed six weeks under the care of a medical man. He was advised to go to California but told that his lungs were perfectly sound. He lived an open air life for eight months but not under medical supervision, and as he felt no better returned to consult his doctor, who then examined his sputum, and told him he had consumption and had better come to the sanatorium. He was recommended as an early case, but on examination at the sanatorium was found to have extensive disease of both lungs and laryngeal involvement. This was fourteen months after the onset of symptoms. He died eight months afterwards.

CASE 2. Tubercle bacilli were discovered in this patient's sputum when he was in the hospital being treated for ischiorectal abscess. Advised by his doctor to live an open air life, given no instructions as regards exercise or any suggestion as to sanatorium treatment, he walked about until he brought on a profuse hæmop-

tysis. He then came to the sanatorium, but the disease was found far advanced, and he died in a few months.

CASE 3. A young clerk in a large eastern city in the spring of 1910 developed a slight hacking cough and consulted one doctor who told him to be careful and gave him some cough mixture. The cough still continued, and as he felt considerable loss of strength, he consulted a second doctor who examined the sputum and told him he had bronchitis and that he had better come west. He came west to Saskatoon and worked in an hotel. As he felt no better, he consulted a third doctor who said he had weak lungs and told him he had better go to Arizona or British Columbia. He had not enough money to go to Arizona, so came to Kamloops and went to work on a ranch. He now himself suspected what he had, but no one of the three doctors had mentioned tuberculosis or sanatorium treatment. He worked on a ranch until March, 1912, two years after the onset of the first symptoms, when a friend advised him to come to the sanatorium. He was admitted to the sanatorium as a far advanced case with very little possibility of a cure.

These illustrative cases could be multiplied many times, and they all go to prove one thing, that in spite of all that has been written and spoken of late years about tuberculosis the first line of defence of the public health, viz., the general practitioner, is negligent in his duty. It is not in most cases want of knowledge but rather carelessness in examination of the patient; trouble is not taken to strip the patient's chest and give him a thorough examination, the sputum is not examined often enough, and when the diagnosis of tuberculosis is suspected the doctor is not honest with his patient. A diagnosis of "weak lungs," "general debility," "chronic bronchitis," is often given when, if the doctor was honest, he would tell his patient at once that he strongly suspected tuberculosis and proper steps should be taken to clear up the diagnosis. Dr. E. S. Bullock, of Silver City, N. Mex., in a recent address says, "For God's sake do be truthful to your tuberculous patients. If a patient comes to you in an advanced stage of the disease, don't hesitate to tell him his case is serious. And if a patient comes to you in the incipient stages, don't hesitate to tell him he has a chance for recovery right here in his own state. You doctors can do as much harm to a tuberculosis patient by wrongfully telling him that he can be cured in three months as by telling him he will be a dead man within a year."

Nor is the Canadian physician any worse in this respect than

his *confre* on the other side of the water. I would draw attention to Tables 2, 3 and 4, which I would especially commend to the consideration of the immigration authorities. Ten per cent of our two hundred cases were resident in Canada less than a year, and practically all of these had been broken in health before leaving the mother land.

TABLE 2.—CLASSIFICATION AS TO NATIONALITY OF 214 CONSECUTIVE CASES

Canadian.....	97 cases	45.6 per cent.
English.....	47 "	22 " "
Scotch.....	25 "	12.6 " "
Irish.....	9 "	4.2 " "
Others.....	36 "	16.6 " "

TABLE 3.—LENGTH OF RESIDENCE IN CANADA OF 200 CONSECUTIVE CASES

1 year or less.....	21 cases	10.5 per cent.
1 to 2 years.....	15 "	7.5 " "
2 to 3 years.....	4 "	2 " "
Over 3 years.....	68 "	34 " "
Canadian born.....	92 "	46 " "

TABLE 4.—ANALYSIS OF 42 CASES, NONE OF WHOM HAD BEEN IN CANADA MORE THAN 3 YEARS PRIOR TO DATE OF ADMISSION TO SANATORIUM

	1 year or less	1 to 2 years	2 to 3 years	TOTAL
Far advanced.....	16	8	4	28
Moderately advanced.....	2	3	2	7
Incipient.....	3	3	1	7

It is not within the scope of this paper to go into immigration matters, but something should be done to prevent these people starting for Canada. Most of them unfortunately had been recommended by some doctor to come to Canada for their health; with the inevitable result that they broke down under the strain of work soon after coming here.

Another fact that has been impressed on me with regard to patients coming to the sanatorium is that out of over two hundred admissions, I remember only one case that came provided with a sputum cup, and not more than ten per cent. had been properly instructed as to the disposal of sputum. This is notwithstanding the fact that practically all the advanced cases were very infectious and had been so for many months previous to admission. In many cases they had been under the supervision of a physician for some time. It is then, I hold, the general practitioner in the first instance that we have to hold responsible in some measure at least

for so many cases becoming advanced. Not until the general practitioner becomes more alert in reference to tuberculosis can we hope to conduct this campaign to a successful issue. There will be more hope when we find more non-tuberculous patients being sent to the sanatorium for diagnosis.

Dr. R. W. Philp, of Edinburgh, in discussing the problem before the International Congress at Rome in April, 1912, says:—"Assuming that it is the intention of a community or a nation to detuberculize itself, the first requisite is a clear conception of the issues. The larger facts of tuberculosis must be grasped. There must be a dropping of mere sentimentality regarding particular cases; an effective opposition must be offered to an infective disease which involves a people and is dependent on conditions which they themselves have created." The problem then for us is how are we as a nation going to detuberculize ourselves. It is plain that the measures we have adopted up to the present, while good as far as they go, are not effective in the control of this disease. The first question that naturally arises is how is the disease most generally spread? Dr Arthur Newsholme, after considering all the causes for the spread of tuberculosis, comes to this conclusion, and one I think which is generally agreed to by all who have studied the subject. He says, "In view of the evidence already given, there can, I think, be little difficulty in agreeing that the home treatment of consumptives in crowded dwellings, in which necessary precautions cannot be taken, is a predominant cause of the continued spread of tuberculosis." Accepting this statement our problem is obviously to segregate the advanced cases; yet in no province in Canada and in not more than two or three cities, is any attempt made adequately to handle these cases and segregate them.

In the first years of the campaign the cry was to build sanatoriums and care for the early case. This was good, and the sanatoriums built throughout Canada have done a great work in both curing the disease and educating the people. The advanced cases, though, were refused admission, or were sent home to die among their friends and family, and in their death left a whole crop of cases for the sanatorium to treat, or other charitable institutions to provide for. We have in the last few years awakened to the fact that something must be done with the advanced case, and a few of our larger cities, notably Toronto and Winnipeg, have provided splendid accommodation for this class. In several of the provinces all hospitals receiving government aid are required now to provide

for cases of tuberculosis from the territory they serve; yet scarcely anywhere is there any adequate provision made.

Health officers outside of a few cities are generally apathetic on the subject, and publish in the local papers items showing how free their cities are from tuberculosis because, forsooth, no cases have been reported. In one of the large cities in Canada from which I obtained statistics, the reported cases of tuberculosis were only equal to the number of deaths. It is surely time that some of the cities and rural communities take stock of the number of tuberculous cases they have. This can only be done by an active campaign, headed by the local health officer and backed by the local practitioners.

In this campaign we cannot do better than follow the scheme evolved by Dr. R. W. Philp, of Edinburgh. This city, under Dr. Philp's organization, has from 1897 to 1906 shown a reduction in the mortality from tuberculosis of 42 per cent. Most of you are doubtless familiar with his plan, which is simply common sense organized. The anti-tuberculosis dispensary is made the central office for all anti-tubercular work. To it all indigents suspected of having tuberculosis are referred; from it go out visiting nurses in active search of tubercular cases, which when found are referred to the proper institution for treatment. The early case is sent to the sanatorium for cure, the advanced case is sent to the hospital, the recovered cases to the farm colony, the anæmic and susceptible children are placed in proper preventoriums and open air schools, the dependent families are given necessary assistance, and all cases are reported to the Board of Health so that proper measures for the disinfection of buildings and condemning of insanitary ones may be carried out. This is of course only a brief outline of the main features of Dr. Philp's scheme, but it has been endorsed by authorities the world over.

Recently the Tuberculosis Committee appointed by Mr. Lloyd George to report as to a general policy in respect to tuberculosis in the United Kingdom, recommended as the first unit of that policy at least one tuberculosis dispensary to every 150,000 to 300,000 of population, the second unit to be institutions such as sanatoria, hospitals, &c. There is no reason to my mind why this scheme should not be followed in some modified form in every municipality of Canada. In some of our larger cities dispensaries have been in operation for several years, and the result of their work is always good. Why should not every city or municipality of 20,000 inhabitants or over support a small dispensary with a visiting nurse.

Under the direction of the health officer she would actively seek cases of tuberculosis, and I am sure many health officers would be surprised at the number that could be found. The objection is immediately raised, what is the use of finding these cases if there is no place to put them? That is only too true throughout Canada, but I would guarantee if you were to announce in any city of Canada that there were a dozen cases of leprosy requiring segregation, accommodation would be provided in twenty-four hours; yet we all know that many advanced cases of tuberculosis are more infectious than the ordinary case of leprosy. Our business, then, is to sufficiently arouse the public conscience, and show the public the need.

While not in favor of any methods that would start an unreasonable phthisiophobia among the people, yet I think the facts of the situation should be put squarely to the public in every community. To do this each health officer must make himself acquainted with these facts: people will listen with interest to general facts, but the interest becomes personal when you tell them that there are a dozen cases in their streets spitting germs of tuberculosis carelessly about; they will then not simply give sympathy and a small contribution to the funds of the anti-tuberculosis association, but they will actively demand that steps be taken to control this disease.

It is a mistake that causes much suffering and hardship to send advanced cases of tuberculosis far from their own home and friends. These cases often live for many months, and it is impossible to keep them in an institution so far away that their family and friends cannot come and see them. They are also always hopeful of cure, and unless they can hope for some benefit from their surroundings they soon become discontented. There is no reason to my mind why small and inexpensive hospitals for consumptives should not be built in every community which is large enough to support a hospital. In it let sanatorium methods be followed strictly, and patients treated as if curable. This will be an education both to local practitioners and to the people of the community.

In every province there should be at least one large hospital for advanced cases, to accommodate the large number of homeless people we have in this new country. These hospitals could very well be built in connexion with the provincial sanatoriums. These institutions are continually swamped with applications from advanced cases. Let arrangements be made to accommodate them at a separate building from the early cases. It is true that not many

of them will be cured, but many will be benefitted and it assuredly works for the public welfare to have these cases in an institution. They will be better educated as to care of themselves and others at sanatoriums than anywhere else. The sanatorium statistics will not look as well, but the public would be protected from many highly infectious cases if this policy were adopted.

To summarize: the responsibility for advanced cases rests first with the general practitioner. He is not yet sufficiently awake to the importance of early diagnosis and the proper treatment of pulmonary tuberculosis. If all our final medical students spent at least a month in residence at a sanatorium, it would help to educate them on this important question.

Secondly, the public health officer in every community should take stock of his tubercular cases and keep track of them. This can be done only by having a competent visiting nurse in every community of 20,000 or over.

Thirdly, accommodation sufficient to the needs of the community should be supplied in connexion with every general hospital to accommodate advanced cases.

Fourthly, sanatoria, while primarily for the treatment of early cases, should be prepared to accept all patients applying, as it is often the case that patients can be persuaded to go to a sanatorium when they will refuse to go to hospitals for advanced cases of consumption.

Our motto should be, "Trace out, educate, isolate, make healthy."

ANEURISM OF THE POSTERIOR TIBIAL ARTERY,
RUPTURE OF THE SAC: OPERATION BY
THE MATAS METHOD

(ENDO-ANEURYSMORRHAPHY)

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WE are indebted to Dr. Matas, of New Orleans, for introducing a method of dealing with aneurism which has proved most efficient in the treatment of such cases. The operation was devised by Dr. Matas for the purpose of effecting a radical cure by taking advantage of a well recognized principle in arteriorrhaphy, namely that surfaces of intima brought together by suture will heal firmly. It is the reverse of the method adopted in intestinal anastomosis—in the latter we invert the cut edges of intestine so as to bring the endothelium of the serous coat into accurate apposition, while in arteriorrhaphy we evert the cut edges of the blood vessels and introduce sutures in such fashion as to oppose the endothelial surfaces of the intima. Matas splits the aneurismal sac, after temporary control of the circulation through it, and, by a series of sutures, he brings broad surfaces of intima together and, when healing takes place, the aneurismal sac is permanently obliterated. It is unnecessary to describe the technique in full as this may be found in papers published by Matas or in any recent text-books of operative surgery.

The principles of this method of operating upon aneurism have been applied by Matas in a variety of ways. First, there is the *obliterative suture* in which the sac of the aneurism is entirely obliterated and the circulation through the affected vessel is completely and permanently cut off. Secondly, there is the *restorative suture* which is applicable where a single aperture connects the aneurismal

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sac with the affected artery. Here the sutures are applied in such fashion as to close the opening and to obliterate the sac while the circulation through the artery continues in the continuity of the vessel. Thirdly, there is the *reconstructive suture* which is applicable to certain types of fusiform aneurism; this is accomplished by introducing a drainage tube of suitable size into the open mouths of the vessel within the sac and introducing sutures over the tube in such a manner as to reconstruct a lumen for the vessel on the deep wall of the sac. The tube is pulled out before the last few sutures are tied. The remaining part of the aneurismal sac is then sutured as in the obliterative method.

In the case reported in the present paper the obliterative suture was employed. The clinical history is as follows:

G. T., æt. forty-four, was under treatment in July, 1911, for nephritis and arteriosclerosis, with a slight cardiac hypertrophy; the urine at that time had a specific gravity of 1014 and contained many hyaline and a few granular casts, with 2·8 per cent. of albumin. The blood pressure was about 190 mm. Under treatment the albumin diminished to 1 per cent. and the blood pressure dropped to 170 mm. In November, 1911, he suffered from what he thought to be sciatica. During a visit to Texas, on February 8th, 1912, about eleven o'clock in the morning, he experienced pain and swelling, suddenly produced, in the calf of the right leg. The pain continued of varying intensity for a fortnight and then gradually ceased. About the middle of April, 1912, he had another attack of pain which lasted for a short time. At this time also he had an attack of a cerebral nature when he suffered from a peculiar numbness of the left side of the face, accompanied by thickness in speech which still persisted to some extent when he came under observation in June. The size of the tumour remained stationary; it had not appreciably altered when he was examined on June 12th, 1912, —four months after its first appearance. The patient had been an alcoholic for some years, at one time taking as much as a bottle of whiskey in twenty-four hours.

CONDITION IMMEDIATELY PRIOR TO OPERATION. The patient had marked exophthalmos, and on inquiry this appeared to have been of comparatively recent development, probably within the past six months. There was no enlargement of the thyroid. He had marked arterio-sclerosis. The radial arteries were, like those of a man of seventy, hard and tortuous. The blood pressure was from 190 to 220 mm. The heart's action was regular and there was no murmur.

He had a marked tumour of the calf of the right leg. This tumour was not tender on pressure; it was firm and did not pulsate as a whole. The pulsation of the posterior tibial artery could be felt above it and was also found of good quality at the inner ankle, almost if not quite as good as in the left leg. The pulsation of the anterior tibial and of the dorsalis pedis arteries was excellent. There was no cedema about the ankle. There was a well marked *bruit*, heard on auscultation, over the tumour. This bruit was systolic, loud, rough and blowing. There was also a remarkable musical note which apparently preceded the blowing sound. The circumference around the calf at its most prominent portion was nineteen and a half inches, while the vertical extent of the tumour was seven inches. He suffered no pain in the tumour, but was considerably crippled by its presence in walking. The urine contained 1.6 per cent. of albumin and some hyaline casts. An x-ray picture showed the tumour, but nothing more.

On June 15th, 1912, an operation was performed. An Esmarch broad tourniquet was applied after five minutes elevation of the limb. After the tourniquet was applied, the leg having previously been depleted of blood by elevation, the tumour seemed softer and fluctuating in parts. An incision along the line of the posterior tibial artery was made. One cut through the gastrocnemius and proceeded to incise the soleus, but one found the latter markedly cedematous and its substance presented a ground-glass appearance on section; the normal red muscle colour was markedly faint and the tissues had a grey colour. One cut through the soleus and immediately came upon adherent laminated clot. This was readily separated from the wall of the cyst and was about the size of a hen's egg in bulk. Beyond this a large cavity contained very dark, almost black, blood clot which lay in a cavity beneath the soleus and having the deeper muscles of the calf in its floor. This blood cyst or hæmatoma lay in a cavity of fascia no doubt forming its superficial boundary. It was limited above by the attachment of the soleus to the oblique line of the tibia. The dark blood clot appeared to be of recent origin. The laminated clot was much lighter in colour, in fact it was in places grey. The clot was scooped out with the hand and the cavity washed out with hot saline solution. The interior was now carefully inspected; it was difficult to find any large blood vessel opening into it. On closer inspection, however, one found a patch of the cyst wall which presented a very different appearance from the remaining portion. This proved to be a ruptured aneurismal sac with two openings on its posterior

surface into which a probe could be passed, upwards from one opening and downwards from the other. Obviously this ruptured sac was covered by endothelium of the arterial wall. The floor of the larger part of the cyst beyond this small patch, was thrown into longitudinal folds and was formed by the deep muscles. Its surface was roughened irregularly over the greater part of its extent.

The ruptured aneurismal sac was closed by the Matas method. No. 1 chromic catgut was used for the purpose. At first one inserted a row of interrupted sutures to close off the arterial openings, using about eight sutures to the inch and employing a full-curved intestinal needle. This was followed by a continuous suture of the same material running longitudinally over the line of the deeper interrupted stitches. A third row was introduced in similar fashion until the aneurismal sac was completely obliterated.

The tourniquet was released after packing the cavity with hot gauze sponges, when slight bleeding occurred from numerous points, apparently of venous origin. Hot sponges and pressure caused this to cease almost entirely, but as one feared a hæmatoma one placed a drainage tube in the lower angle of the wound, then interrupted silk-worm gut stitches through the divided muscles and skin. More accurate approximation of muscle was secured by No. 2 sterile catgut. The silk-worm gut stitches were tied and the skin brought together by horse-hair. A double splint of plaster of Paris was applied over a suitable dressing.

The blood pressure during operation went up to 260 mm. and it is interesting to observe that there was some oozing of blood into the cavity when this high degree of pressure was reached—the tourniquet being still in place and undisturbed. Immediately before this occurrence the wound was almost absolutely dry.

It was quite obvious that an aneurism of the posterior tibial artery had ruptured. The aneurism was of the fusiform type and about the size of a pigeon's egg. It had ruptured no doubt when the patient experienced the sudden pain and swelling, with the production of a large hæmatoma beneath the soleus. The laminated blood clot was found in the region of the aneurismal sac only, but its formation must have extended partly beyond the limitations of the arterial portion of the cyst.

A piece of the laminated clot was preserved and, when cut across, its centre was found to contain a soft, dark, blood clot. It appears that either this clot really occupied the aneurism and that a portion of the aneurismal wall was torn away with the clot, leaving only the patch behind already referred to, or that part of

the aneurismal wall was completely destroyed, or destroyed to such an extent as not to be recognizable.

The patient made a good recovery from operation and left the hospital. He was living in a cottage on Toronto Island during the month of August. He was placed on a special diet, the albumin in the urine diminished to one-third of one per cent., the blood pressure remained from 170 to 180 mm., and he was enjoying fair health, when he was unfortunate enough to contract pneumonia. At that time his leg was getting strong, his speech was almost normal and he appeared to be remarkably well. He passed his crisis successfully but was suddenly seized with coma of uræmic origin and died in a few hours on September 6th, 1912, having lived about three months after operation. Unfortunately we were not able to obtain a postmortem examination.

The case reported in this paper is perhaps worthy of record because the aneurism was situated in a region in which the operation of Matas has rarely been performed. In only one instance out of eighty-five in the published statistics of Matas was the posterior tibial the artery affected. Our case is also of interest because the operation was successfully carried out four months after the aneurism had ruptured. Further, the patient was severely handicapped for operative procedure by reason of the existence of nephritis along with arteriosclerosis and an unusually high blood pressure.

Case Reports

NOTES ON TWO CASES OF INTESTINAL OBSTRUCTION

CASE 1. *Traumatic rupture of the jejunum; fourteen hours later operation with repair of the tear, followed by peritonitis with gradually progressing obstruction, becoming complete thirteen days after operation.*

Mr. D., aged forty-six, blacksmith, at 10 a.m. July 22nd, 1912, was kicked by a horse in the abdomen over the left rectus muscle, one and a half inches above the umbilicus. Patient was prostrated, complained of severe pain, and vomited. Dr. Walker, of Glencoe, was called and advised the patient's immediate removal to hospital, which he declined until near midnight. He complained of severe abdominal pain, continuously during the day, notwithstanding large doses of morphia. On admission to Victoria Hospital at midnight, patient presented some shock, thoracic breathing, and general abdominal rigidity, but more marked over the site of the injury. The skin of the abdomen was not broken, and beyond a slight redness there was nothing superficial to be seen. The left thigh was flexed on the abdomen. Patient was nauseated and vomited a little. He did not complain of much pain, but was well under the influence of morphia. The catheter drew off normal urine. A provisional diagnosis of ruptured intestine was made, especially on account of the marked abdominal rigidity, and operation was begun under ether narcosis at 2 a.m. July 23rd, i.e., fourteen hours after injury. A left rectus incision disclosed free fluid in the peritoneal cavity with the omentum adherent under the transverse colon to the small intestine. This adhesion led down to a rent in the first part of the jejunum, admitting the tip of the index finger. The intestinal mucosa was prolapsed and almost closed the opening. The rent was closed with two linen sutures and invaginated by two purse string sutures. No stenosis resulted from closing the tear. The rupture taking place at the very beginning of the jejunum and the tense abdominal muscles, which did not relax well during anaesthesia, made the operation difficult. Beyond a slight tearing away of the transverse mesocolon from the colon, no other injuries were discovered. The abdomen was closed around a rubber tissue, gauze-

covered, tube which extended down to the damaged intestine. The patient was put in Fowler's position and continuous saline administered per rectum. He reacted well but developed some peritonitis, as evidenced by abdominal rigidity with elevated pulse and temperature. The wound suppurated deeply. His pulse and temperature were normal a week after operation and he appeared to be doing nicely, except that he was gradually becoming distended. His bowels were acting daily. He complained of slight pain at times and frequently gulped up a mouthful of stomach contents. His condition during the next few days remained very much the same, except for the increasing distension, until August 5th, when he had not passed feces or gas for twenty-four hours, notwithstanding large doses of eserine and enemas. His pulse and temperature were going up, and we decided to explore the abdomen. A median incision below the navel was made, anæsthesia being perfect with $\frac{1}{4}$ per cent. cocaine in normal salt solution. On opening the peritoneum a loop of small bowel, non-distended, shoved itself into incision. This was held back while the peritoneum was opened more fully, when a larger loop of small intestine worked up into incision. It was very much distended, bluish, and thinned to the thinness of tissue paper, the intestinal contents being easily seen through the wall. The omentum was adherent to it. The obstruction seemed to be the result of adhesions in the pelvis, but the distended loop was so thin and rupture so imminent that a satisfactory diagnosis could not be safely made. We contented ourselves with stitching the distended loop to the peritoneum on all sides, thus shutting off the general cavity, and putting a purse-string suture in the exposed bowel and invaginating a Paul tube, tying the purse-string over it. Fully a quart of intestinal contents drained out in a few minutes. It might be wise in the majority of cases to wait some time before opening the bowel, but in this case the intestine was so distended that waiting seemed hazardous. Continuous saline was administered after operation, with nothing by the mouth for two days. A good fecal movement took place from the rectum on the third day after operation, and the distended abdomen quickly receded. After the Paul tube became loose and was removed, the intestine was afferently and efferently irrigated daily by means of a long rectal tube. Most of the washings after being retained for a few minutes would be expelled from the rectum. In three months from the operation, the fistula was completely closed and the bowels were acting daily, only at times requiring an enema. I examined the patient in March, 1913, and

beyond two ventral hernias at the site of the incisions, he is quite well. He has no obstruction, and weighs more than he ever did.

This case taught us first, that it is not necessary to have marked pain and vomiting with obstruction.

Secondly, that infiltration of cocaine solution is very efficient in opening an abdomen.

Thirdly, that the mode of procedure to relieve the obstruction, although only a crude makeshift may at times be useful where further exploration would cause rupture, or where the obstruction, when found, cannot be relieved with a safer method.

CASE 2. *Lateral anastomosis in an inoperable carcinoma of the cæcum, with obstruction.*

Mrs. P., aged sixty-one, presented herself December 16th, 1912, complaining of cramp-like pain in the abdomen, at times nausea, belching of gas, borborygmi, diarrhoea with watery stools, anorexia, and abdominal distension. Patient informs us that last June she had an attack of pain in the upper abdomen that kept her in bed three days, following which she was quite well until two weeks ago, when the present trouble started. Examination shows a distended abdomen with no points of tenderness or rigidity, but with an ill-defined mass on the right side, which seems to extend down into the pelvis. Every few minutes, and especially on manipulation, three distinct coils harden, lower themselves in the abdomen, and then immediately rise up fully two or three inches above the umbilicus. In a second or so she complains of pain, and gas can be heard under pressure. Patient was informed of a diagnosis of intestinal obstruction, but she thought she was no worse than she had been at times during the past two weeks. Late the next night I was asked to see the patient. The pain was more severe, no gas or stool had passed that day, although an enema I ordered brought away traces of stool. She was vomiting and straining every few minutes. The vomitus had a marked faecal odor. Abdominal examination showed more distension than on the previous day. Patient was moved to Victoria Hospital and Dr. John A. McGregor saw the case with me in consultation. He corroborated, and added that probably the obstruction was cæcal or in small intestine, as the colon was not distended. While making preparations for operation, morphia gr. $\frac{1}{4}$ and hyoscine gr. 1-100 were given hypodermically; $\frac{1}{4}$ per cent. cocaine infiltration anæsthesia was used as in preceding case. Median incision beneath the navel showed free fluid in the peritoneal cavity, with a generally distended small intestine. A mass, the size of an egg, implicating the ileo-cæcal junction was

partially delivered; and carcinoma was diagnosed. Enlarged glands were present in the mesentery fully two or three feet on either side of growth. The growth was fairly adherent to the posterior parietes. The colon was very much contracted. The mass was considered inoperable owing to the free fluid and the wide extension of the growth in the glands, and a lateral anastomosis was decided upon to relieve the obstruction. A loop of ileum three feet from the growth was anastomosed to the transverse colon, using Moynihan's technique. No drainage was used, and the abdomen was closed in layers. One pint of salt solution was injected under the breasts. Patient convalesced rapidly. She never vomited after the operation, the pulse and temperature remained normal, and the bowels moved well on the third day, and daily since. She has no nausea or pain, and passes gas freely. The wound healed by first intention. Ether was required to finish the operation as the tugging on the mesentery caused pain. I examined the patient April 29th, 1913, and except for some diarrhoea, she is comfortable.

London, Ont.

J. J. MASON

At the half-yearly meeting of the Summit County Medical Society, which took place at Akron, Ohio, on June 3rd, Dr. McCallum, the president of the Canadian Medical Association, was made an honorary member of the society. Dr. McCallum enjoys the distinction of being the first recipient of such a mark of esteem on the part of the society since it was organized in 1842.

Editorial

THE ANNUAL MEETING

THE forty-sixth annual meeting of the Canadian Medical Association will have been held before this number of the JOURNAL reaches the members. As the meeting was held in the latter days of June the exigencies of publication do not permit of an extended report. Of necessity that must remain until August. At the moment of writing everything is of good augury for a successful event. The vigour of the local committee in London is unabated, and the officers are working in harmony which is altogether admirable. The members to a gratifying number have signified their intention to attend, and the formal addresses are in good hands. The programme stands with few amendments as published in June, and there is every indication that it will be carried out in its entirety.

From an advance copy of the president's address with which we have been favoured, it would appear that Dr. McCallum has dealt trenchantly with the defects in the organization of the profession. We cannot, however, refrain from expressing the opinion that he sets too high a numerical standard for the Association, at least for immediate attainment. It is a remarkable feat to have achieved so large a permanent membership in so short a time. As the value of association becomes more apparent and the need more pressing the body will increase and the organization become more secure.

Another theme which Dr. McCallum took for his own is the relation which exists between the manufacturer of medical preparations and the profession. On the face of it, there is an appearance of the profession being "exploited," but in

reality there is no remedy. We cannot have it both ways. We cannot be disinterested and at the same time share in pecuniary profit. That is the heresy into which Dr. Friedmann fell. The most we can ask is that the manufacturers supply an honest article; and there is every evidence that they comply with this demand. With their pecuniary success we have nothing to do. If their profits are too great, other "business men" may be trusted to look to that. However it may be in England there is no sign in Canada of any legislative interference with the freedom of the profession. The relation of the physician to the patient is unimpaired. The control of medical education rests where it belongs, namely, with those who know most about it. The confidence of the public in the universities and in the profession is rising; and the Association itself is regarded as an institution which is concerned most with the public welfare and not with professional aggrandizement.

For the address in surgery Dr. Hutchison chose as his subject, "Fractures and their treatment." No subject could have been more timely. Since the introduction of radiography this branch of surgery has become one of especial interest, and many radical changes have taken place in the knowledge of bone regeneration and repair. Two important associations have made this subject their own, namely, the British Medical Association, and the American Surgical Association, and their reports deserve the most weighty consideration. Fractures have always been a source of medico-legal anxiety to the profession, and the employment of radiography has not made it less. Patients and their friends expect to see the plates, although they are too inexperienced to read them correctly. It happens frequently in law-suits that these plates are brought into court where laymen feel qualified to interpret what they see, and this in face of the dictum of the American Surgical Association, uttered as long ago as 1900, that "skiographs alone without expert surgical interpretation are generally useless and frequently mis-

leading." The ownership of these plates is yet in dispute, and it has not been settled in how far an operator is justified in disposing of plates which he had made for a surgeon in the treatment of a case.

THE FRIEDMANN AFFAIR

DR. FRIEDMAN has come and gone. The high hopes which were so assiduously, and not quite disingenuously, encouraged, have vanished; and sufferers from tuberculosis are left to bear as well as they can a fresh disappointment. The attitude of the profession in America was upon the whole correct. The situation was a delicate one. The visitor did not choose to proceed by the usual channel, and it was difficult for the profession to hold a middle course. On the one hand, there was danger lest the public should be imposed upon. On the other there was danger lest a method of treatment, which upon the face of it did not appear absurd, might be unduly disparaged. There is a large and noisy section of the public which cannot get into its thick head that the safety of the patient is the supreme law with the profession, and is too ready to ascribe to it the motives which actuated Demetrius and his fellow craftsman. Even in the United States no unusual difficulties were placed in Dr. Friedmann's way. He was merely asked to observe the law which in process of time had grown up for the protection of the people. It was well understood that he had come to America without those credentials which a visitor usually exhibits. Indeed he was preceded by information which made caution a necessity. In Canada the state of mind was one of curiosity, a desire to know, and a willingness to be convinced. Accordingly, the adventurer was invited to Montreal, not by the profession, it is true, but by an institution in which the public and the profession has confidence, to demonstrate his theories and to apply his method of treatment. It is only fair to Dr. Friedmann to say that he came willingly and without any demand

or suggestion of pecuniary reward. He was offered every facility, and patients at their own formal request were placed at his disposal. He made a second visit, and all his requirements for a thorough test were fulfilled. The results were observed closely, and although a report has not yet been issued it is a matter of common knowledge that nothing of good has happened. In New York a report upon eighteen cases was published in *The Medical Record* on June 8th. "In not a single one of them," declares Dr. Mannheimer, "was there definite improvement to date attributed to the vaccine. In some, the disease has progressed unchecked. In no instance did the temperature return to normal. Five of the eighteen developed abscesses, four of them small and one large. I cannot determine whether the vaccine hastened the progress of the disease where it occurred." Following is a summary of the cases:

CASE 1, married woman, forty years of age, sick fourteen years. There has been no change either way in this case.

CASE 2, man, thirty-four years of age, had pulmonary tuberculosis twelve years; result, no change.

CASE 3, married woman, age thirty-seven, no improvement, but troublesome sinuses.

CASE 4, girl, twenty-one years old, had pulmonary tuberculosis twelve years, patient is worse. I would not advise a second injection by Friedmann method.

CASE 5, man, forty years old, bookkeeper, pulmonary tuberculosis for four years; result absolutely negative.

CASE 6, farmer, thirty-eight years old, a man who had so much confidence in injection that he married; local infiltrate disappeared and patient is getting worse.

CASE 7, showman, twenty-eight years old, when re-examined on May 10th had lost seven pounds, but felt fairly well.

CASE 8, man, thirty years old, ten days after treatment said he was greatly improved; when re-examined subjective conditions fair, but disease had advanced and is still spreading.

CASE 9, man, twenty-six years old, four weeks after injection old perirectal abscess opened again. Coughed a little blood on the 22nd.

CASE 10, man, twenty-eight years old, teacher, sick four and a half years, put to bed in hospital.

The result in these last four cases is so far unfavourable.

CASE 11, physician, forty-six years old, sick two years. The result of injection is that he coughs and expectorates more and does not look as well. As the result of this case particularly, I am disgusted with Friedmann's methods.

CASE 12, lawyer, twenty-seven years old, laid up in bed since end of March with broncho-pneumonia, fever, hæmorrhages, and appearance of bacilli. Disease not checked by vaccine.

CASE 13, collector, thirty years old, result no improvement, infiltrate broke down and discharged pus.

CASE 14, hospital orderly, twenty-six years old, tuberculosis of kidneys and bladder, no improvement, tubercle-bacilli still present.

CASE 15, boy, four and a half years old, a case of tuberculous lymphnodes, which Friedmann did not consider suitable for his vaccine.

CASE 16, a boy nine years of age, tuberculosis of hip for three years; result, no change in joint condition.

CASE 17, butcher, twenty-seven years old, so far improvement neither in his affected lungs nor knee.

CASE 18, boy, sixteen years old, typical case of tuberculosis of ankle; injection followed by sharp general reaction, followed by less pain and freer motion; but soon old condition returned; second injection May 26th, no improvement since.

However it may be with the individual patient, there is in the mind of the profession no ground for despair. Twenty-five years ago Koch's tuberculin was acclaimed nearly as loudly. During a whole winter it was tried in the Montreal General Hospital. The results were closely observed, and in the end the late R. L. Macdonell summed up the whole matter in the memorable words, "the more we looked, the less we saw." And yet the steps which led to the discovery of tuberculin form a stage in the advance of knowledge. Although Dr. Friedmann's venture has ended in fiasco, it may at some future time be considered a mark at least upon the path by which victory will have been attained.

DOMINION REGISTRATION

DOMINION medical registration is now an accomplished fact. The adjourned meeting of the Medical Council of Canada—better known as the Dominion Medical Council—was held in Ottawa during the week ending June 21st. With one exception, through illness, all the members, thirty-two in number, were present. The utmost harmony prevailed, and much work was accomplished including the passing of regulations requiring the approval of the Governor-in-Council. The subjects of examination were decided upon, being practically anatomy and physiology of the primaries and all the final branches—written, oral, and clinical. A staff of twenty examiners, both French and English, was selected for the work. The city of Montreal was chosen as the centre for all the examinations for this year, and the date decided upon was October 7th. At the first meeting of the Council in November last, it was thought advisable to hold the examinations in four places simultaneously, namely, Halifax, Montreal, Toronto, and Winnipeg; but the scheme had to be abandoned owing to the enormous expense involved and the feeling that the examinations would lack uniformity. While Montreal has been chosen as the centre for the present year only, it is not unlikely that the idea of selecting one town in place of four will prevail in the future; and while there are seven teaching centres in the Dominion, at any one of which the examinations could be held, those having the greater clinical facilities may reasonably be preferred and a system of rotation established. It is probable that the examination of Laval university students will always take place in Montreal or Quebec.

The register of the Medical Council of Canada will be opened on July 1st of this year. This was considered a propitious date, being the anniversary of the confederation of the the provinces; and thus the anniversary of the confederation of the provinces and that of the medical profession in Canada

would run concurrently. Those who have been ten years in practice may register, therefore, on July 1st. Section 18, sub-section 2 of the Act reads: "Any person who has received a licence or certificate of registration in any province previous to the date when the Council has been first duly constituted under this Act and who has been engaged in the active practice of medicine in any one or more provinces of Canada, shall after ten years from the date of such license or certificate be entitled to be registered under this Act as a medical practitioner without examination, upon payment of the fees and upon compliance with the other conditions and regulations for such cases prescribed by the Council: provided that, if the medical council of any province is not satisfied with the period of years prescribed by this sub-section, such medical council may, as a condition to provincial registration, exact an examination in the final subjects from practitioners registered under this sub-section and the said examination shall be held according to the provisions of the by-laws or rules of the respective provincial council."

Under this section, any medical practitioner who has been licensed, or has received a certificate, in any province prior to the date of the constitution of the Council, and has been engaged in the active practice of medicine, after ten years—part of which may elapse before the Council was constituted and the remainder after the Council was constituted—may become entitled to apply for and receive a licence. Consequently, the candidate who has been in active practice and has been licensed for nine years and six months at the date when the Council was constituted will have to wait for six months, and may then apply for registration without examination. Concerning the proviso, it was distinctly understood at the meeting that this would be exacted by one province only, namely British Columbia.

With reference to the other class of candidates for the license, namely those of whom an examination is exacted, clause 12 of the Act provides for them. It reads thus: "No

candidate shall be eligible for any examination prescribed by the Council unless he is the holder of a provincial licence, or unless he presents a certificate from the registrar of his own provincial medical council, that he holds a medical degree accepted and approved of by the medical council of the said province." The phrase in this clause which has given rise to a great deal of discussion, namely, "his own provincial medical council" has been interpreted by the solicitor of the Council as follows: "The provincial medical council referred to by this clause would be the council by which the candidate has been matriculated or entered as a student. Where no matriculation or entrance examination is required by the provincial medical council, a candidate is entitled to apply to the provincial medical council in which he has his domicile and to obtain a certificate from the registrar of such provincial medical council stating in the language of the amended section that he is the holder of a medical degree accepted and approved of by the medical council of the province."

Thus, after nearly twenty years of struggle, arrangements have been made at last to remove the absurd condition of affairs affecting the medical profession in Canada, whereby a medical man in the exercise of his calling was unable to cross an imaginary line, or a narrow river between two provinces without running the risk of fine and possibly imprisonment. In order to secure the right now obtained to practice in all the provinces of Canada, it would have been necessary to pass the examinations exacted by nine provincial boards. Moreover, this has been accomplished without disturbing the autonomy of the provinces in any way. Provincial boards or councils will continue to exist for many years for the purposes of taxation and discipline and for the examination of those desiring to practise in one province only. Doubtless, in time, the majority of the provincial boards, one by one, will relegate their authority to the Dominion body, until there shall be one door only of entrance to the practice of medicine in Canada.

A SPECIAL course of post graduate work for the benefit of British medical men is to be given in Paris next autumn under the direction of Professor Widal. The course will include clinical work and clinical teaching, practical bacteriology as regards diagnosis, and the practical teaching of bacteriological methods applied to clinical researches, more especially the practical demonstration of Professor Widal's original methods. The exact dates of the course have not yet been determined, but it is probable that the lectures will be commenced in October.

THE Union Médicale Franco-Ibéro-Américaine—or "Umbia" as it is called from the initial letters of the full title of the Association—was formed in Paris a few months ago. The purpose of the Association is to unite physicians of Central and South America with those of Spain and France, the membership being open to any doctor who speaks Spanish and Portuguese. It is proposed to establish a Hispano-American hospital, to arrange scientific tours, and to make available to members summaries of all medical papers written in Spanish. It is the intention also to establish an information bureau in Paris for Spanish or Portuguese doctors and to assist them in case of need.

SOME adverse comment upon the Hamilton civic hospital was made by Dr. Bruce Smith on the occasion of a recent inspection; in fact the recommendation was made that the government grant of \$10,000 should be discontinued unless the conditions at the hospital were improved. A meeting of the board of governors was called to consider the matter and the charges made by Dr. Bruce Smith to a great extent were denied. It was stated that the hospital is overcrowded and in need of improvements, but that the estimates had been cut down by the board of control and, consequently, it has been impossible to make the alterations. It was denied that the hospital was in a "disgracefully dirty" condition. The reports are conflicting and the question awaits solution by those in a position to judge of it.

Book Reviews

A TEXT-BOOK OF PHYSIOLOGY. BY ISAAC OTT, A.M., M.D.
Fourth edition, revise and enlarged; illustrated with 434
half-tone and many coloured engravings. Price, \$3.50.
Philadelphia: F. A. Davis Company, 1913.

Comparing this edition with previous ones we note, according to the preface, that twenty pages have been added, and several old cuts have been replaced by new ones. There are plates showing the movements of the stomach and intestines made by the use of the *x*-rays. Possibly, as the author says, these cuts have not appeared in any other English text-book of physiology, but they are not uncommon in periodical literature, and some excellent ones have been reproduced on these pages. The chapter upon Internal Secretion has been rewritten, and the pineal gland comes in for fresh consideration. All of the newer physiology receives adequate treatment. As examples we may note the correlation of the ductless glands, Abderhalden's new test for pregnancy, and the increase of cholesterolin in that condition. A particularly interesting section is that which deals with milk secretion. There are nearly five hundred illustrations many of which are new in drawing and in design. Words are used with reserve. The amount of material in the book is enormous, and there is a singular lack of profitless discussion of rival explanations of phenomena. Dr. Ott continually exercises his own judgment, and he has produced a book which is replete with sound learning.

ORGANIC AND FUNCTIONAL NERVOUS DISEASES. A TEXT-BOOK OF NEUROLOGY. BY ALLEN STARR, M.D., Ph.D., LL.D., Sc.D., Professor of Neurology, College of Physicians and Surgeons, New York. Fourth edition, enlarged and thoroughly revised. Octavo, 970 pages, with 323 engravings and 30 plates in colors or monochrome. Cloth, \$6.00, *net*. Lea & Febiger, Philadelphia and New York, 1913.

This book is familiar to all who are especially concerned with the treatment of nervous diseases, and they will be glad to have the latest results of the author's experience in this, the fourth edition. It has grown to nearly one thousand pages, and is a well considered

presentation of this most perplexing subject. During the past thirty years Dr. Starr has accumulated much material, and he has drawn upon these with a lavish hand. He has not been content with recording the various theories of disease, and due attention has been given to differential diagnosis and treatment. Nor does he neglect the description of the surgical measures which at times produce such brilliant results. We may well believe that the author's desire will be gratified, that in this new form the work will add to its practical service as a text-book for students and as a guide for physicians.

A SHORT PRACTICE OF MIDWIFERY EMBODYING THE TREATMENT ADOPTED IN THE ROTUNDA HOSPITAL, DUBLIN. BY HENRY JELLETT, B.A., M.D., F.R.C.P.I. With a preface by Sir W. J. Smyly, M.D., F.R.C.P.I. Sixth edition, revised; illustrated. Toronto: The Macmillan Company of Canada, Limited, 1913.

A book on midwifery of which 20,000 copies have already been printed, and is now in its sixth edition, requires slight comment, especially when it comes from the Master of the Rotunda Hospital, and is issued by the Macmillan Company of Canada, which has done so much to disseminate good literature from the European schools. The introduction from the hand of Sir W. J. Smyly, formerly the Master of the Rotunda Hospital, which appeared in the first edition, still stands, and the statistics have been analyzed again. The cases now number 36,227. During the past year there has been a remarkable outpouring of books upon this subject, and yet Dr. Jellett's still holds its own.

FREUD'S THEORIES OF THE NEUROSES. BY DR. EDUARD HITSCHMANN, of Vienna. Nervous and Mental Disease Monograph Series, No. 17. Price, \$2.00. New York: The Journal of Nervous and Mental Disease Publishing Company, 1913.

This series consists of short monographs, translations, and minor text-books, on subjects related to the specialty of nervous and mental diseases. This monograph is the seventeenth in a long and useful series. The translation from the German is made by Dr. C. R. Payne, and for it we have nothing but praise. The task was a heavy one as English equivalents had to be found for the new terms that accompany new ideas, and as much of Freud's thought

is new and strange, it must have been difficult to make the translation so lucid, accurate, and unambiguous as it is. The book is intended to serve as an introduction to the application of the psychoanalytical method in the study of the neuroses. The book does not make exactly easy reading, but no book which is worth while does. The translator and publishers have rendered a useful service to the profession. As we are informed by Dr. Jones, by way of introduction, the volume is "a synthetic presentation of the Freudian theory," which, after all, is not a fixed philosophic doctrine but a growing body of science.

NERVOUS AND MENTAL DISEASES. FOR STUDENTS AND PRACTITIONERS. BY CHARLES S. POTTS, M.D. Third edition, enlarged and revised. 12mo volume of 610 pages, with 141 engravings and 6 full-page plates. Price, cloth, \$2.75 net. Philadelphia and New York: Lea & Febiger, 1913.

The new features which one notices in this edition of Dr. Potts' well-known book, are a reconsideration of tic, myotonia atrophica, progressive lenticular degeneration, and disbasia lordotica deformans. The symptoms and methods of examination have been amplified. Dementia paralytica finds its proper place amongst the diseases of the brain and cord, and the latest views of the Wassermann reaction have been stated. The book continues to be, as it has been from the first, a standard for students and practitioners who wish to inform themselves upon nervous and mental diseases.

TUBERCULIN IN DIAGNOSIS AND TREATMENT. BY FRANCIS MARION POTTINGER, A.M., M.D., LL.D. Price, \$3.00. St. Louis: C. V. Mosby Company, 1913.

This work of Dr. Pottenger is based upon the treatment of two thousand cases of tuberculosis, and is a succinct account of the use of this substance, especially for purposes of diagnosis. Upon the whole, the author is inclined to think that tuberculin when administered properly is of great value in promoting the healing of tuberculosis. He gives evidence to show that its employment is increasing in favour. Although he is an ardent supporter of tuberculin, he has always reinforced it with measures which improve the physical and mental condition of the patient. He thinks the time is near at hand when many of the simpler cases will be treated by the general practitioner by this method. The book is a strong plea for more general recognition of its value. The writer gives one the impression of entire sincerity.

CLINICAL DISORDERS OF THE HEART BEAT. A HANDBOOK FOR PRACTITIONERS AND STUDENTS. BY THOMAS LEWIS, M.D., D.Sc., M.R.C.P. Toronto: The Macmillan Company of Canada, Limited, 1913.

This small book of one hundred pages bears the imprint of the Macmillan Company of Canada, although it must not be assumed on that account that it was printed in this country. The excellence of the text and illustrations would disprove the assumption. The author does not go to the extreme of laying down as a dogma, that all practitioners should be trained to record the movements of the several heart chambers by machinery. He entertains the belief that most disturbances can be identified by simpler means, but he points out that the use of the sphygmograph encourages accuracy, although much can be accomplished without it.

SOLIDIFIED CARBON DIOXIDE IN THE SUCCESSFUL TREATMENT OF CUTANEOUS NEOPLASMS AND OTHER SKIN DISEASES, WITH SPECIAL REFERENCE TO ANGIOMA, EPITHELIOMA AND LUPUS ERYTHEMATOSUS. BY RALPH BERNSTEIN, M.D. Illustrated. Hammond, Indiana: Frank S. Betz Company, 1912.

This little book of less than one hundred pages is a plea for the use of solidified carbon-dioxide in the treatment of cutaneous neoplasms. The author expresses the belief that this substance will eventually take the place of the *x*-rays in their treatment. He has brought to bear upon the theme, a great deal of clinical experience drawn from a wide range of practice. It would appear that Dr. A. Campbell White, in 1899, was the first to use liquid air in the treatment of cutaneous diseases, and it was Dr. Pusey who first suggested the use of carbondioxide as a substitute. The illustrations of cases before and after treatment, would appear to be quite convincing.

PRISMS. THEIR USE AND EQUIVALENTS. BY JAMES THORINGTON, A.M., M.D. Illustrated. Philadelphia: P. Blakiston's Company, 1913.

The difficult subject of the nature, use, and equivalents of prisms is set forth in this little book of 144 pages with extraordinary clearness, that is, as clearly as can be done, by means of text and figures.

VACCINE AND SERUM THERAPY, including also a Study of Infections, Theories of Immunity, Specific Diagnosis and Chemotherapy. By EDWIN HENRY SCHORER, B.S., M.D., Dr.P.H. Second revised edition; price, \$3.00. St. Louis: C. V. Mosby Company, 1913.

Since the first edition of this book was published in 1909, there has been a large increase in the knowledge of vaccine and serum therapy. Since that time this method of treatment has gained increased recognition. Four years is a long time in these days, and the second edition of this book is issued none too soon. It contains all that is necessary for physicians to know about this new and fascinating method of treatment. The text is well done and the illustrations are adequate. Dr. Schorer has had a large and varied experience, and is the master of the technique of the laboratory.

MEDICAL ELECTRICITY. A Practical Handbook for Students and Practitioners. By H. LEWIS JONES, M.A., M.D. Sixth edition; illustrated; price, 12s. 6d. net. London: H. K. Lewis, 1913.

Upon five previous occasions we have called attention to Dr. Lewis Jones' "Medical Electricity" and always with commendation. The present edition is the sixth, and in it is to be found evidence of the marked change which has in recent years taken place in our conception of electro-therapeutics. As the author says in the preface, there was in the past, much uncertainty as to the modes of action of electricity on the body, but we may now take our stand upon a firmer foundation. He begins with the understanding that electrical applications act either by the chemical effects which they produce, or by their thermal effects. The book has long been, and continues to be, a sure guide to the employment of electricity in medicine.

SURGERY OF THE EYE. A Handbook for Students and Practitioners. By ERVIN TÖRÖK, M.D., and GERALD H. GROUT, M.D. With 509 illustrations and two coloured plates; price, \$4.50 net. Philadelphia and New York: Lea & Febiger, 1913.

A new book on the surgery of the eye has an especial interest even to persons who are not immediately concerned with ophthalmology. This book, by two New York surgeons, is thoroughly workmanlike, and is upon rather a new plan. Preceding a descrip-

tion of each group of operations; there is a consideration of the diseases for the relief of which they are intended. Indications are given for the selection of the proper procedure, and a detailed description of the operation follows, with a list of the instruments required. Next, possible complications are considered, along with the after care of the patient. All the usual operations are described, and certain others that have been found of value in the experience of the writer. The illustrations are all fresh, and they have been used without restraint; possibly too freely when one considers the accessibility of instrument-makers' catalogues. This book does all that any book can do for a student or practitioner. The rest must be left to experience at the bed-side and in the operating-room.

FIBROIDS OF THE UTERUS: THEIR PATHOLOGY, DIAGNOSIS, AND TREATMENT. By SIR JOHN BLAND-SUTTON. Illustrated; price, cloth, 4s. 6d. net. London: Science Reviews Limited, 1913.

In this little book an attempt is made to set down in narrative form a summary of our knowledge of the extremely common tumours, known as Uterine Fibroids. These are the words of the preface, and the author adds,—Hysterectomy for fibroids is unrivalled amongst surgical procedures for its ability to amend invalid women by thousands. The book is a development of this thesis. Sir John Bland-Sutton brings to bear upon the subject an enormous experience, and an acute mind.

ACUTE POLIOMYELITIS (Heine-Medin's Disease). By DR. IVAN WICKMAN, Stockholm. Translated by DR. J. WM. J. A. M. MALONEY, F.R.S. Ed. Illustrated; price, \$3.00. New York: Journal of Nervous and Mental Disease Publishing Company, 1913.

This disease is of perennial interest, and scarcely a month passes without an important monograph or book being issued upon it. The present monograph which is issued in the Nervous and Mental Disease Monograph Series is by Ivan Wickman, a leading authority in Sweden, where the disease has a reputation of being especially rife. It was Wickman who reported the great Swedish epidemic of 1905, and demonstrated that the disease was a general infection with specific localization in the nervous system. In spite of the enormous amount of work which has been done upon the subject in recent years, it must not be taken for granted that the causes

are yet understood. Indeed, it is not settled that epidemic and acute poliomyelitis are one and the same thing. The monograph will be found of extraordinary interest, not only in the facts which it represents, but in the admirable manner in which they are presented.

THE NARCOTIC DRUG DISEASES AND ALLIED AILMENTS: PATHOLOGY, PATHOGENESIS, AND TREATMENT. By GEO. E. PETTEY, M.D. Illustrated; price, \$5.00 net. Philadelphia: The F. A. Davis Company, 1913.

This is a solemn book, and yet a hopeful one. Most books upon narcotic drug addiction are written in a spirit of utter pessimism or of open charlatanry; and the pessimism seems to be most marked in the case of those who have had the largest experience in the treatment of the condition. The opening of this book is not encouraging. It describes itself as "intensely practical," and in the dedication as a "Ground for Hope, a Rift in the Clouds, a Helping Hand." We seem to have heard this before. But the author wins approval when he demonstrates that the habitual user of narcotic drugs is suffering from a disease and not a vice, and that his condition is due to a toxæmia, which in turn is due to defective elimination induced by the drugs. Also, one shares with the author his indignation at the barbarities which in asylums and prisons are inflicted upon victims of drugs, where these unfortunate creatures are deprived suddenly of their support without any compensatory measures being taken for their relief. Dr. Pettey puts forward a method of treatment which is quite rational and, according to his testimony, successful. It is based upon thorough purgation, not at random, but by a well studied system by which all parts of the intestinal tract are induced to return to activity in due order. As an adjunct scopolamine is used, not as an antidote, for antidote there is none. The experience of Dr. Pettey will give fresh hope to many a discouraged practitioner.

THE CATARRHAL AND SUPPURATIVE DISEASES OF THE ACCESSORY SINUSES OF THE NOSE. By ROSS HALL SKILLERN, M.D. Philadelphia and London: The J. B. Lippincott Company, 1913. Canadian Office: 201, Unity Building, Montreal.

So far as we are aware this is the only book in the English language, with the possible exception of Logan Turner's, which deals adequately with the diseases of the accessory sinuses of the

nose. It is in the first place intended for specialists, and they will find in its 400 pages, beautifully printed and illustrated with a lavish hand, everything which pertains to that department of their work. The illustrations are 247 in number, and there are besides six coloured plates. The references to the literature are extraordinarily copious. The work is entirely creditable to American surgery and is likely to form a standard for many years to come.

THE DIFFICULTIES AND EMERGENCIES OF OBSTETRIC PRACTICE.
By COMYNS BERKELEY, M.A., M.D., B.C. (Cantab.),
F.R.C.P. (Lond.), M.R.C.S. (Eng.), and VICTOR BONNEY,
M.S., M.D., B.Sc. (Lond.), F.R.C.S. (Eng.), M.R.C.P.
(Lond.). With 287 illustrations. Toronto: The Macmillan
Company of Canada, Limited, 1913.

The object of this book is quite definite, namely, as set forth in the preface, to afford practical guidance to the practitioner when he is called upon to deal with the difficulties and emergencies that attend obstetrical practice. The physiology and the management of the normal condition is omitted from the pages as not being germane to the purpose of the authors, and as there are already so many excellent text-books treating of those subjects. The book has arisen out of the experience of the authors, and it is only on rare instances they have cited other authorities. All the illustrations are fresh. In a book of nearly eight hundred pages these two accomplished practitioners have dealt with every possible difficulty or emergency which is liable to occur. The printing is clear, and the headings are bold. The text is compressed, and the book will be found a sure guide in all of those emergencies which arise with such startling suddenness in this branch of practice.

THE MODERN TREATMENT OF NERVOUS AND MENTAL DISEASES.
By eminent American and British Authors. Edited by
WILLIAM A. WHITE, M.D., Superintendent of the Govern-
ment Hospital for the Insane, Washington, D.C., and SMITH
ELY JELLIFFE, A.M., M.D., Ph.D., Adjunct Professor of
Diseases of the Mind and Nervous System in the Post-
Graduate Medical School and Hospital, New York. Volume
I. Two octavo volumes; illustrated. Price per volume,
cloth, \$6.75 net. Philadelphia and New York: Lea & Febiger,
1913. Toronto: D. T. McAinsh & Company.

During the past year the number of books dealing with the nervous system has been remarkable. From a reference to these

pages, it would appear that nine books either new or in revised editions have appeared. Now comes a new work done in a new way. It is to appear in two volumes of which the first has been issued. It is a volume of nearly nine hundred pages, and its successor promises to be equally comprehensive. What then is the justification for so voluminous a work in so crowded a field? In the first place, the authors know how to write. Next, they know the subject, and they have gathered together a remarkable list of contributors. To this volume there are nineteen. The authors consider the nervous system to include the mind, and maintain that disturbances of any and all of its functions, mental as well as physical, are the proper subjects for therapeutics. They have not confined themselves to details, important as these are, but have laid most stress upon "the larger human problem of the individual, the man, the biological unit and his social relations." They are less concerned, as they mention in the preface, to patch up broken machinery, but rather to give directions for avoiding the wrecks. They lay emphasis upon the psychical side of life as being worth quite as much consideration as the physical. In the face of much "pessimistic nihilism" they affirm that "neurology and psychiatry offer the widest possible opportunities for preventive medicine, as well as for therapeutic optimism." Accordingly the work is not addressed to the medical practitioner alone. It is written for him principally, but the authors appeal to a wider audience: the educator, the legislator, the judge, the lawyer, the student of the problems of criminology, of immigration, of dangerous trades, the hospital superintendent, the social worker, the military man, even the intelligent laymen, all will find this work within their comprehension. They have produced a work in philosophy rather than a text-book in medicine; and they have faced boldly the problem of race amalgamation which is now going on in the United States, which is indeed, "a prodigious biological experiment." They are quite logical and have taken the position that the work "insanity" should be eliminated from medicine, as a relic of that time when all brain disorders with predominant mental systems were considered as one disease. Certain of the chapter headings will indicate the general nature of the treatise, namely, Heredity, Education, Delinquency and Crime, Immigration and the Mixture of Races, Prison Psychoses, Nervous and Mental Disorders in their Military Relations. With nineteen contributors it is obvious that the contributions will not be of equal value, and we would select the chapter on Alcoholism and the Alcoholic Psychoses as being the least satisfactory. As a

tract for distribution in a lodge of "Good Templars" it would serve admirably, but a writer falls short in scientific detachment who puts forward the following dogma: "The arguments that may be presented in an attempt to justify the uses of alcohol as a beverage are unworthy of serious consideration when properly contrasted with the medical and sociological reasons for abstinence." The chapter which deals with "Immigration and the Mixture of Races in Relation to the Mental Health of the Nation" is one of grave significance, and the problem concerns Canada just as urgently as it concerns the United States. The book is a most important one, and is suggestive of the wide extension that medicine has had in recent years in the fields which were previously considered closed to it.

Books Received

THE following books have been received, and the courtesy of the publishers in sending them is duly acknowledged. Reviews will be made from time to time of books selected from those which have been received.

FIBROIDS OF THE UTERUS: THEIR PATHOLOGY, DIAGNOSIS, AND TREATMENT. By SIR JOHN BLAND-SUTTON. Illustrated; price, cloth, 4s. 6d. net. London: Science Reviews Limited, 1913.

ACUTE POLIOMYELITIS (Heine-Medin's Disease). By DR. IVAN WICKMAN, Stockholm. Translated by DR. J. WM. J. A. M. MALONEY, F.R.S. Ed. Illustrated; price, \$3.00. New York: Journal of Nervous and Mental Disease Publishing Company, 1913.

PROCEEDINGS OF THE AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION, at the Sixty-Eighth Annual Meeting, held in Atlantic City, N.J., May 28-31, 1912. Baltimore: American Medico-Psychological Association, 1912.

FORMULAIRE DES SPECIALITES PHARMACEUTIQUES POUR 1913. By DR. VICTOR CARDETTE. Seventh edition; price, 3 francs. Paris: Librairie J. B. Baillière & Fils, 1913.

MANUAL OF MEDICINE FOR NURSES. By GEORGE H. HOXIE, M.D., and PEARL L. LAPTAD. Second edition, rewritten and enlarged; illustrated. Price, cloth, \$1.50 net. Philadelphia and London: W. B. Saunders Company, 1913. Canadian Agents: The J. F. Hartz Company, Toronto.

GOLDEN RULES OF DIAGNOSIS AND TREATMENT OF DISEASES. By HENRY A. CABLES, B.S., M.D. Second edition, revised and rewritten. Price, \$2.25. St. Louis: C. V. Mosby Company, 1913.

SURGERY OF THE EYE. A Handbook for Students and Practitioners. By ERVIN TÖRÖK, M.D., and GERALD H. GROUT, M.D. Illustrated; price, \$4.50 net. Philadelphia and New York: Lea & Febiger, 1913.

THE NARCOTIC DRUG DISEASES AND ALLIED AILMENTS: PATHOLOGY, PATHOGENESIS, AND TREATMENT. By Geo. E. Pettey, M.D. Illustrated; price, \$5.00 net. Philadelphia: The F. A. Davis Company, 1913.

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Men and Books

BY SIR WILLIAM OSLER, BT., M.D., F.R.S.

XXII. DR. SLOP. At last some one has done justice to John Burton the man-midwife of York, so cruelly held up to ridicule by Sterne in "Tristram Shandy" as "Dr. Slop"; and it has been well done by Alban Doran in the current number (January, February), of the *British Journal of Obstetrics and Gynaecology*.

It is surprising that Dr. Ferriar, the distinguished Manchester physician, who exposed so pitilessly the plagiarisms of "Tristram Shandy" in the "Illustrations of Sterne," (1798), did not devote a chapter to his contemporary, Dr. Burton. The only man I know who speaks a good word for him is his townsman, James Atkinson, the author of the "Medical Bibliography, A and B," (1834), the most fascinating book on the subject ever written. In a characteristically anecdotal sketch, he comes out bravely in Burton's defence. Certainly he was a man of parts, not only a distinguished physician, but the author of a celebrated work, still an authority, on the antiquities of Yorkshire.

Burton was born in 1710, studied first at St. John's College, Cambridge, and afterwards at Leyden, under Boerhaave. He began practice in York, where he seems early to have acquired the nickname of "Dr. Slop." He practised as a physician and a midwife. As a strong Tory, Burton quarrelled with Archdeacon Sterne, uncle of Laurence, and in 1745, at the time of the Jacobean rising, was arrested. Sympathy with Prince Charlie cost him two years in prison, and a libellous portrait in "Tristram Shandy." Shandy Senior had read much, and was full of fads, one of which was the terrible danger to the delicate structure of the brain in the process of delivery. When his son and heir was ready to appear, the father would very much rather have had a Cæsarean section made so as to spare the child's brain. For safety Dr. Slop was sent for. (Burton had already written his best known medical work—"Essay towards a complete new system of Midwifery," 1751.) How Dr. Slop forgot his obstetrical bag, and how Obadiah, who was sent for it, knotted it so that Slop cut his thumb in solving the knot with a pen-knife, how he curses Obadiah with the famous curse of Bishop Ernulphus, may be laughed over in Sterne's memorable story.

Mr. Alban Doran, discussing the type of forceps used by Burton, brings out a number of new points, the most interesting of which is that the forceps at present preserved in York, which was in Burton's possession, is not the forceps which he invented and which goes by his name. It is, however, the one which he actually used, and the one with which, we may suppose, he broke the bridge of Tristram's nose, to the unutterable grief of Shandy Senior.

Doran gives an account of the quarrel between Burton and Smellie, the well-known obstetrical author, whom Burton convicted of a curious mistake. He thought the Latin name of a calcified foetus was an author. In "Tristram Shandy" (Bk. 2, Chap. xix.), Sterne refers to this mistake in which Smellie regards *Lithopadus* as author of a book "De Partu Difficili," but in a foot-note a correction is made, as Sterne had seen the published letter of Burton to Smellie.

Burton's "Midwifery" was popular and was translated into French. He wrote also a treatise on the "Non-Naturals" and minor essays. Of his work on the Antiquities of Yorkshire, only one volume appeared.

Through Burton's influence and energy, the York Infirmary was founded, and this is perhaps his best memorial.

Doran's estimate of him may be quoted: "Dr. John Burton was an able scientific obstetrician, and his 'Essay' shows that he was a man of practical experience. He was also a prominent citizen of York, the founder of its hospital, a noble philanthropic work, the benefits of which are continued to this day. Besides, this famous obstetrician was a highly distinguished antiquary, author of a standard work still much prized by librarians. Doctors and archæologists quoted above have alike testified to his merits. In days when the mad-midwife was looked down upon, Burton lived, a gentleman and a scholar." And I may add he was a worthy student of the great Boerhaave, whose, "Life" (London, 1743), I believe is from his pen.

XXIII. JOHN SHAW BILLINGS. Among the men of our profession made distinguished by the American Civil War, Dr. Billings takes an unusual position. One hears sometimes that the career of the Army Surgeon offers small scope to a man of capability and energy, but to this the life of Dr. Billings is a strong contradiction. Without special advantages in early life, and without special opportunities during the war itself, he showed such capacity for work and for organization that when peace was declared he was one of

the fortunate ones to be selected to utilize the enormous materials that had accumulated during the war. Plenty of opportunities now came to him, and a great one in connection with the Surgeon-General's Library. There have been great bibliographers in medicine since the famous Conrad Gesner wrote his "*Bibliotheca Universalis*" in 1545, but no one has ever undertaken and carried to completion so monumental a work of this character as the *Index Catalogue*.

Dr. Billings was born in 1839, and graduated from the Medical College of Ohio in 1860; after a session as demonstrator of anatomy he joined the Northern army and served throughout the Civil War, at the conclusion of which he was Medical Inspector of the army of the Potomac. He then became attached to the Surgeon-General's Office in Washington. In utilizing the enormous clinical and statistical material of the war, a serious difficulty arose owing to lack of the necessary works of reference. Surgeon-General Hammond had already started a library in connexion with his office and this formed the beginning of the now famous collection. Dr. Billings was put in charge of the few hundred volumes and given a free hand. With a large annual appropriation, Europe was ransacked for books and files of journals, and the library grew with extraordinary rapidity. In this bibliographical work, the late Dr. Windsor of Manchester acted as his friend and adviser. In the last report, October, 1912, the library is said to contain 178,741 bound volumes and 317,740 pamphlets. The collection is extraordinarily rich in old fifteenth century works, and particularly in the journal literature of the world. Owing to the liberality and freedom with which successive Surgeons-General have allowed its treasures to be utilized, the library has had an important influence upon the medical profession in the United States.

In 1876, as the library began to grow, the question of a printed catalogue was discussed, and a specimen fasciculus was distributed for purposes of criticism. The work progressed slowly, but in 1880 Volume I of an *Index Catalogue* was printed, containing nearly a thousand pages. As subject and author catalogue it was immediately recognized that such a publication would be of the greatest help, but few at a time thought that a work on so vast a scale should be kept up. The literature of every subject was given with extraordinary fullness, though representing only the material available in the library; thus in Volume I under Aneurysm there were some 70 pages of references. Year by year the work progressed, and the first series of sixteen volumes was completed in 1895. Dr. Billings

had a happy faculty for choosing able assistants, and he early had the good fortune to associate with him Dr. Robert Fletcher, whose death was noticed in the JOURNAL a couple of months ago. The first volume of the second series was published in 1896, and Volume XVII of Series II has just been issued. The remarkable growth of medical literature is well illustrated by comparing the references on Syphilis in Volume XIV of the first series and Volume XVII of the second; in the one there were 109 pages, and in the other 207.

It was always a marvel to Dr. Billings' friends how year by year he kept up the publication of the *Index Catalogue*, but he used laughingly to say that it was only a matter of organization. He read every page of the proofs, and the singular accuracy which characterizes the work is due to Dr. Fletcher and himself. As an outgrowth of this library work the *Index Medicus* of current literature was started by Dr. Billings, and continued, after his death, by Dr. Fletcher.

Early in his career Dr. Billings became interested in public health and in hospital organization, and was in charge of the preparation of the vital statistics for both the tenth and the eleventh census of the United States. Of the Johns Hopkins Hospital Trust Dr. Billings was appointed adviser; he drew up the plans for the hospital and was active in getting it organized. An important interview I had with him illustrates the man and his methods. Early in the spring of 1889 he came to my rooms in Walnut Street Philadelphia. We had heard a great deal about the Johns Hopkins Hospital, and, knowing that he was virtually in charge, it flashed across my mind that he had come in connexion with it. Without sitting down, he asked me abruptly, "Will you take charge of the Medical Department of the Johns Hopkins Hospital?" Without a moment's hesitation I answered "Yes." "See Welch about the details; we are to open very soon. I am very busy today; good morning"; and he was off, having been in my room not more than a couple of minutes. In the early days of the hospital, Dr. Billings' counsel was always sought, and the growth of the school was a matter of pride to him. For many years he was lecturer on the history of medicine. In 1891 he accepted the professorship of hygiene at the University of Pennsylvania, and became director of its new laboratory of hygiene. In 1896 he became director of the New York Public Library under the Astor, Lenox and Tilden foundations, and the crowning work of his life has been to consolidate these collections, and to see them housed in the magnificent building that was opened two years ago. The extent of

the library may be gathered from the fact that it has more than 2,000,000 volumes and upwards of fifty branch libraries, with a staff of 1,002 persons.

In the foundation of the Carnegie Institution in Washington, Dr. Billings took an active share, and for years he was chairman of its board.

Dr. Billings was the author of many works on vital and social statistics, on bibliography and on hygiene. Honorary degrees were conferred on him by Edinburgh, Oxford, Dublin, Munich, Harvard, Yale, and other universities. His two strong qualities were a capacity for work and for organization. He worked easily without fuss or effort, but incessantly. He had an equable temperament, and took the accidents and worries of life in a philosophic spirit. Of late years he was often in the hands of the surgeons, on several occasions for very serious operations, which he bore with his characteristic equanimity.

SASKATCHEWAN

ARRANGEMENTS have been made by the government whereby all the medical officers of health in the province—some two hundred in number—will attend the meeting of the Canadian Public Health Association, which will take place in Regina on September 18th 19th and 20th.

In connexion with the Dominion Waterways Act and the work that is being done by the Commission of Conservation to prevent the pollution of streams and consequent outbreaks of typhoid, it is of interest that during the last few years efficient filtration plants have been installed at Saskatoon and at Prince Albert, while Moose Jaw now obtains its water supply from springs at Caron and Regina from underground sources. At present there are eight sewage disposal plants in the province and the plans for ten additional ones have been submitted to the provincial bureau of public health. Thus it is hoped that in future years the prevalence of typhoid will be greatly diminished.

Res Judicata**QUESTION DRAWER.—ONTARIO HEALTH OFFICERS' ASSOCIATION**

1. Should the sanitary inspector attend quarterly meeting, and if he does, should he get paid extra in a municipality only paying \$15 to sanitary inspector?

Answer: There is no provision for sanitary inspector attending meetings. He should get sufficient salary. He is not obliged to attend meetings unless instructed by the board.

2. In case of disposal of sewage according to your regulations re septic tank, what course do you advise where there is not sufficient ground for system?

Answer: If there is not sufficient land area, the effluent from the septic tank should be otherwise provided for. If the soil is unsuitable (clay), twelve or eighteen inches of sand might be deposited over the clay and the subsoil pipes laid in this, as described in a pamphlet on Sewage Disposal issued by the provincial board.

3. What should be considered a reasonable minimum salary for an M.O.H. in villages, towns and townships?

Answer: In towns a reasonable salary might be based on the population, say \$100 for the first thousand, and \$25 or \$50 for each additional thousand or portion thereof.

In townships it is difficult to say what is a reasonable salary. Some townships pay \$100, some \$5 or \$10. As soon as the M.O.H. demonstrates to the public that he is worth it, he will usually obtain a better salary. It would be a good plan for the M.O.H. to call public meetings in the various schools in his municipality and give an address to the ratepayers, children, and teachers upon sanitary matters. If he desires it, the district officer of health will help him in any way possible.

4. Explain intentions of the Act in the case of payment for time in addition to hotel and railway fare, (a) Where the M.O.H. has a special amount as salary, (b) Where the M.O.H. has no salary specified.

Answer: The M.O.H. can only collect for hotel and traveling expenses. Usually, however, the municipal council pays a per diem allowance for loss of time. Under Section 22 of the Public Health Act, the local board of health might vote a sum for services rendered, which might be made to include the per diem allowance.

5. What are the duties of district officers of health in relation to township local boards?

Answer: To advise and assist the M.O.H. in improving sanitary conditions of the municipality.

6. Can the municipal local board of health compel the trustees to give a report as to the sanitary condition of a school and if they do not, and our inspector is sent, can we compel the trustees to pay for the expense of sanitary inspection?

Answer: No, it is the duty of the M.O.H. to inspect the schools and disinfect at the expense of the municipality if necessary.

7. Can a man whose lot does not run 100 feet from his house in a small country village keep a pig?

Answer: No. See paragraph 20, Schedule B, Public Health Act.

8. What should be given as *immediate* cause of death in this case: A man had paralysis agitans for three years and epithelioma of the face for two years. He refused operation for the latter, and gradually becoming weaker, died at the age of seventy-nine. The disease which caused death was epithelioma, but what would you put down for immediate cause, and how could you determine its duration?

Answer: Cause of death—carcinoma of face, because it is of shorter duration. Immediate cause—none.

9. I visited a house suspected of having had scarlatina, and found a girl eight years old who, they said, had "grippe" six weeks previously. They stated positively that there had been no rash and no vomiting, but a sore throat lasting for two or three days. There was no sign of desquamation but a pronounced cervical adenitis, the glands on one side being as large as a hen's egg, and the child was very anæmic looking; but no physician had seen her. Should I have ordered the house and the child's person and clothing

to be disinfected? Should I have placarded the house till this was done?

Answer: If scarlet fever in neighborhood, this was probably a case of it. Best to have had house and child disinfected. No need to placard after six weeks.

10. I visited a house in which I found a young lady who had been sick three weeks previously. She had had a slight rash, sore throat and vomiting. There was slight desquamation on the face, especially the forehead at the roots of the hair. I placarded the house, but allowed the girl's father to continue gathering cream upon the mother agreeing to keep the girl isolated. Should I have done so? No physician had been called.

Answer: This is a case of scarlet fever. Should have stopped the father collecting cream. See regulation 4.

11. I have heard that these people are going out in spite of quarantine, but no complaint has been sent in, and they live ten miles from here. Should I go and investigate?

Answer: If the M.O.H. has quarantined, he should be satisfied that his orders are carried out.

12. Does a certificate have to be signed before the M.O.H. can collect his expenses from the municipality?

Answer: The members ticket will be sufficient voucher. If any difficulty, write the chief officer of health.

13. We are supplied with a very inefficient sanitary inspector who will not follow instructions, nor try to make himself efficient. The city council have been notified of the condition and asked to supply a competent inspector, which so far they have failed to do. What do you advise the local board of health to do to remedy the condition?

Answer: The local board of health may employ and pay any sanitary inspector they wish. Payment may be made under authority of Section 22 of the Public Health Act.

14. Description of suitable box for manure at stables, as to size, &c.

Answer: Size about 4' x 4' x 4' with screen top. As flies require fourteen days in which to breed and grow to full size, there will be no necessity for screening if the manure is removed and spread on the fields once a week.

15. We find that some householders put old tins and broken china, &c., in the privy vault, and this creates an objection on part of farmers to receive the night soil or give dumping ground. How may this be prevented?

Answer: Educate and prohibit by by-law. The greater portion of household garbage should be dried as well as possible and burned in the stove or furnace.

16. Appointment of M.O.H.

This officer should be appointed by by-law at a stated salary which the Act says must be a reasonable salary, Sections 37 to 39. He cannot be dismissed except for cause and with the approval of the provincial board.

By a decision of Mr. Justice Lennox, the M.O.H. of 1912, unless appointed by the council of 1913, does not retain office, but the properly appointed officer of 1913 continues in office subject to the terms of Section 37.

17. The cost of disinfection is borne by the local board of health (Section 29), except as covered by Section 62, 1 and 2.

The expenses of persons with communicable diseases are supplied in the first instance by the M.O.H. or local board of health, but the corporation of the municipality may recover from the person the amount spent in providing medicine, nurses and other assistance and necessities for him, but not for the expenditure incurred in providing a separate house or in otherwise isolating him. Section 58, 1 and 2.

18. In a garnishee action now pending between the local board of health, plaintiff, and one Reid, a lumberman, defendant, where payment is demanded by the local board for cleaning up the nuisance perpetrated by Reid in his lumber camp, counsel for defendant claims that in such an action the local board of health *non esse*: that action must be taken by the municipality. Kindly rule.

Answer: Council must take action. Section 58, (1) and (2).

19. Is it advisable to compel all farmers in back-country townships to clean out wells annually, where the townships are not very wealthy and find it hard to carry out the Act?

Answer: Advise that all wells be cleaned out. Don't attempt too arbitrary measures. Educate the public and they will soon see the benefit.

THE ONTARIO HEALTH OFFICERS' ASSOCIATION

THE Ontario Health Officers' Association which met on the 29th and 30th day of May, under the presidency of Dr. Adam Wright, was a decided success. The meeting was held in the Parliament Buildings and the only fault to be found was in the fact that the place of meeting was rather small, as it was scarcely expected that the number in attendance, some three hundred, would be so great. This Association, the first meeting of which was held last year in connexion with the Canadian Public Health Association, is composed of members of the Provincial Board of Health, the district officers of health, and the medical officers of health of the various municipalities in the province. There are about 770 medical officers of health in Ontario, and by law they are required to attend this meeting. Their expenses are paid by the local municipalities.

Papers were presented under various headings such as: "The duties of the modern medical officer of health in cities and towns," by Drs. Hastings and Dickinson. "Communicable diseases," including smallpox and cross-infection in isolation hospitals. A feature of the meeting was the paper of Professor Whipple of Harvard, "The value of vital statistics in relation to public health." This was discussed by R. E. Mills of the City Health Department.

Dr. Hodgetts' paper on home hygiene provoked considerable discussion. He contended that medical inspection of schools, being part of public health work, should be placed under the health department and not under the Board of Education, as is the case in Toronto. He claimed that the present system caused duplication of work and a waste of public money. He also objected to nurses making a diagnosis of cases. The Association evidently agreed with his views, as the members passed a resolution to be sent to the Minister of Education, asking that medical inspection of schools be transferred to the control of the Provincial Board of Health.

The City of Toronto tendered a luncheon to the members on the first day of the meeting. Mayor Hocken presided and welcomed the visitors. Short addresses were given by Dr. Adam Wright, Dr. Hodgetts, Professor Whipple, Dr. Hastings, Dr. McCullough and Alderman Rowland, chairman of the City Board of Health.

In the afternoon session Dr. Adam Wright gave an address, and Controller McCarthy on behalf of the Mayor gave an address

of welcome. Dr. J. A. Amyot gave a public address to a large audience in the evening on the subject of "The transmission of communicable disease." Motion pictures illustrating various phases of sanitary work were provided by the provincial board.

On the second day the question "Should the medical practitioner be paid for reporting communicable diseases, births and deaths?" started a lively discussion. The general opinion seemed to be that the medical man was entitled to some remuneration for this work, and a resolution was passed asking that the local municipalities be required to pay a fee of 50 cents for each birth, and death, and for each case of communicable disease reported.

Dr. Parfitt and Miss Eunice Dyke read papers on subjects relating to tuberculosis. There was a free discussion. The milk question was taken up by Drs. G. G. Nasmith and A. W. Macpherson. The "Question Drawer" was most interesting. Drs. Amyot and McCullough gave answers to a large number of practical questions.

After a luncheon in the Parliament Buildings short addresses were given by Reverend Dr. Cody and Hon. W. J. Hanna. The last session was taken up with papers on "Sanitary work amongst foreign population," by Dr. C. N. Laurie. "Disposal of waste and garbage," by Dr. Hall, and "Disposal of domestic sewage," by Dr. R. E. Wodehouse. All of these were freely discussed.

Dr. C. J. Hastings, medical officer of health for the City of Toronto, was elected president. The Association meets annually.

MANITOBA MEDICAL ASSOCIATION

THE sixth annual meeting of the Manitoba Medical Association was held in Brandon on June 5th and 6th, about sixty doctors being in attendance.

The first session was devoted to the reading of the president's address and to a symposium on obstetrics. The president, Dr. J. S. Matheson, of Brandon, after welcoming the visitors to the Wheat City, referred to the value of meetings held elsewhere than in Winnipeg, in stimulating the attendance of the country doctors. He suggested that branches of the medical library should be established in various centres in the province. The following papers were then read:

"Management of normal pregnancy, labour, and puerperism," by Dr. A. W. Moody.

"Diagnosis of abnormal presentations and positions," by Dr. O. Bjornson.

"Treatment of abnormal presentations and positions," by Dr. Ross Mitchell.

"The application of forceps," by Dr. C. C. Field, paper read by Dr. Bjornson.

"Eclampsia," by Dr. H. W. Wadge.

A vigorous discussion followed, in which Drs. R. P. Crookshank, Wright, M. S. Fraser, P. H. Miller and the readers of the papers took part.

At the close of this session the visiting members and their wives were entertained by a thirty mile auto ride through the wheat fields of the district. In the evening a banquet was tendered to the visiting members at the Prince Edward Hotel. Mayor Fleming welcomed the members of the association and Dr. Halpenny responded.

Friday morning was devoted to an exhibition of clinical cases by the profession of Brandon and vicinity. The following cases were shown: Aleopecia areata, by Dr. Beer; splenic anæmia, by Dr. Bigelow; pernicious anæmia, by Dr. Carter; double cataract, by Dr. Latimer; cases for diagnosis, by Dr. Beer; Dr. Ferguson, of Souris, and Dr. Bigelow; early phthisis, by Dr. D. A. Stewart, superintendent of Ninette Sanatorium; group of kidney and ureteral cases with radiographs, by Dr. Bigelow.

At the conclusion of the clinic automobiles were in waiting to convey the party to the Asylum for the Insane. This magnificent new building, recently erected to replace the former structure destroyed by fire, was shown to the visitors by Dr. McFadden, the superintendent, after which lunch was served. Following this a short business session was held. It was decided that the next place of meeting should be Winnipeg, the date of the meeting to be fixed later. The election of officers resulted as follows: president, Dr. J. Halpenny, Winnipeg; vice-presidents, Dr. O. Bjornson, Winnipeg, and Dr. M. S. Fraser, Brandon; honorary secretary, Dr. Ross Mitchell, Winnipeg; honorary treasurer, Dr. J. A. Gunn, Winnipeg; executive, Drs. D. G. Ross, Selkirk; R. P. Crookshank, Rapid City; P. H. Miller, Morden; F. C. St. John, Virden; W. J. Harrington, Dauphin.

Dr. C. Eugene Riggs, of St. Paul, Minn., then gave an excellent clinic on syphilis of the nervous system, illustrated by five cases presented by Dr. H. E. Hicks, the assistant superintendent of the

asylum. Dr. Riggs emphasized the essentially specific nature of tabes dorsalis and general paresis and the value of salvarsan or neosalvarsan in such cases.

The visiting members at the close expressed themselves as delighted with the hospitality shown by their Brandon brethren. The largely clinical nature of the meeting made it a particularly interesting one and the Brandon convention may be considered one of the most successful that has yet been held.

Obituary

DR. HUTCHINSON J. NASH, of Forest, Ontario, died May 17th, in the sixty-eighth year of his age. Dr. Nash was medical officer of health for Forest and was the oldest physician in Lambton.

DR. JUSTUS SAMUEL WRIGHT WILLIAMS, of Oakville, Ontario, died June 4th, in the seventy-third year of his age. Dr. Williams had practised in Oakville for many years. He leaves a widow.

DR. JAMES P. McEVoy died on June 10th at Stamford, Connecticut. Dr. McEvoy was a graduate of Toronto University. The greater part of his professional career was spent in New York, where he practised as a throat and nose specialist.

DR. THOMAS H. STARK, of Toronto, died from heart failure on June 9th, in the fifty-eighth year of his age. He was born in the province of Quebec and graduated from Trinity Medical College. In 1881, he was appointed house surgeon to the Toronto General Hospital, and later he joined the staff of the Grace and of the Western Hospitals. He had a large general practice and was well known. He leaves a widow, a son and two daughters.

DR. J. D. A. MACDONALD, of Montreal, died at the Montreal General Hospital, on Saturday, May 31st, after an illness of four months. Dr. MacDonald was fifty-seven years of age; he graduated from McGill in 1873. He was a member of the Unitarian Church. The greater part of his professional work was done

amongst the poor, and he was much beloved by his patients for his sympathy and unselfish generosity. He leaves a widow and two sons.

DR. NATHANIEL HENRY ALCOCK died at Montreal on June 12th. For the past two years, Dr. Alcock had held the position of Joseph Morley Drake professor of physiology at McGill University, in succession to Professor Wesley Mills. He was educated at Dublin University where he obtained his M.D. degree, and afterwards studied at Marburg and at London; he was senior moderator and gold medallist in natural science of Trinity College, Dublin, in 1896. In the same year, he was appointed demonstrator of anatomy at Victoria University, Manchester; in 1897 he was appointed assistant professor of medicine at Trinity College, Dublin; and in 1903 he became demonstrator of physiology in the University of London, and in 1904 lecturer in physiology at St. Mary's Hospital, London, of which institution he was also vice-dean. In 1911 he came to McGill University. He leaves a wife and four children.

News

MARITIME PROVINCES

CERTAIN changes have been made in the plans for the hospital which is to be built at Wolfville, and the estimated cost has been reduced to \$450,000. It is expected that the building will be commenced very shortly.

SOME recent investigations into the prevalence of bovine tuberculosis in Nova Scotia show that, throughout the province, some fifteen or twenty per cent. of cattle are affected; and, at the government experimental farm at Truro, seventy-five out of eighty-three head of cattle were found to be suffering from tuberculosis.

DURING the year ending June 1st, 1913, about seven hundred patients were treated in the Moncton Hospital, and about five hundred received attention in the outdoor department. The hospital

now can accommodate thirty-eight patients; it contains two public wards of eleven beds each, and sixteen private rooms.

THREE hundred and twenty-three patients were admitted to the Prince Edward Island Hospital at Charlottetown during the past year, and 202 operations were performed. The endowment fund now amounts to \$25,589.46, a legacy of \$5,000 having been bequeathed for this purpose by the late Rev. Dr. Brecken. The financial statement for the year shows a balance of \$641.46 in favour of the hospital.

IT is proposed to enlarge the Fredericton Hospital. No definite plan has been decided upon as yet but the matter is under consideration.

ONTARIO

DURING the month of May, 529 cases of measles were reported in Toronto. There were also 56 cases of diphtheria, 93 of scarlet fever, 23 of typhoid, 8 of smallpox, 43 of tuberculosis, 48 of chickenpox, and 7 of whooping cough.

IT has been decided to sell the isolation hospital at Dundas for \$4,000, and to build instead of it two cottages. The hospital has never been completed.

MAY 31st was chosen as a tag-day for the Berlin-Waterloo Hospital; the money collected amounted to \$2,462.08.

CASES of smallpox have been reported from St. Thomas, Meaford, and Wallace township.

THERE was a high percentage of deaths from diphtheria in Toronto during the month of May. Of thirty-six cases admitted to hospital, six died.

AT a recent meeting of the Toronto Board of Health, it was decided to repair the isolation hospital at Riverdale Park at a cost of from twenty-five to thirty thousand dollars.

DR. T. A. LOMER will enter upon his duties as medical officer of health for Ottawa on July 1st.

SINCE the Ingersoll Hospital was opened three years ago, four hundred and sixty-one patients have been treated there, and thirty deaths have occurred.

THE plans are being prepared for additions which are to be made to the Wingham Hospital. They include a maternity ward, isolation rooms, and a new operating room.

THE Canadian Society of Superintendents of Training Schools for Nurses held its seventh annual meeting in Berlin, May 19th and 22nd.

THE sixty-ninth annual meeting of the American Medico-Psychological Association was held at Niagara Falls from June 10th to 13th. The meetings took place at the Clifton Hotel under the presidency of Dr. James T. Searcy, of Tuscaloosa, Alabama. A feature of the meeting which was of particular interest was the display of the work accomplished by patients receiving industrial training in various institutions in Canada and the United States.

THERE has been considerable discussion as to the establishment of a hospital in the eastern part of Toronto, now that the General Hospital has been removed to College Street. It is possible that a hospital, which when completed will contain four hundred beds, will be built at a cost of about \$400,000. At first, however, it is proposed to provide for one hundred beds only and the hospital, ultimately, will comprise four such units.

A SUCCESSFUL campaign was conducted by the Cobourg Hospital board in May, with the result that \$17,000 was collected in one day towards the new hospital which is to be commenced at once.

THE Eastern Hospital at Brockville is to be enlarged. The extension will contain the executive offices and the admission building of the hospital and will cost about \$100,000.

A NEW smallpox hospital is to be built at St. Thomas.

AN effort is being made to collect \$25,000 with which to build a general hospital at Leamington. A suitable site has been offered

by a resident of the town and, if the necessary funds can be collected, the intention is to build a hospital which shall provide accommodation for twenty-five patients. At present there is no hospital between Windsor and Chatham.

At a meeting which took place May 30th, it was decided that a hospital should be established in the western part of Toronto. It is to be called the "Howard Park Hospital," and it is proposed to adopt the unit plan of construction and to enlarge the hospital as the need for extension arises. It will be supported by the city, and it is possible that, for this purpose, a by-law for \$100,000 may be submitted to the ratepayers at the beginning of next year. It is probable that, when the hospital is established, an arrangement will be made whereby physicians will be permitted to treat their own patients in the hospital.

QUEBEC

DURING the week ending June 7th, there were reported in Montreal 9 cases of diphtheria with one death, 26 cases of scarlet fever with two deaths, 4 cases of typhoid with three deaths, 31 cases of measles, 28 cases of tuberculosis with fifteen deaths, and one fatal case of gripe. The number of deaths from all causes was 169, and of these 73 were of children under five years of age.

THE fourth annual meeting of the Lake Edward Sanatorium was held on Monday, April 3rd, 1913. Since the hospital was founded in October, 1909, 114 patients have been admitted, 98 of whom have been discharged. Information concerning the health of these patients since they left the sanatorium is being collected and will be published in a later report. During the year ending March 1st, 1913, 53 patients were admitted and 37 were discharged, 6 of whom on admission were classified as "advanced" cases.

THE following is the list of honours and of those who have been awarded degrees in medicine by McGill University:

Holmes' gold medal for highest aggregate in all subjects forming the medical curriculum: R. H. Malone, Antigua, B.W.I.

Final prize for highest aggregate in the fifth year subjects: W. C. Gowdey, Bridgetown, Barbados, B.W.I.

Wood gold medal for best examination in all the clinical branches: W. T. Purdy, Amherst, N.S.

McGill Medical Society senior prize: R. H. Malone, Antigua, B.W.I.

Honours in aggregate of all subjects: 1st, W. C. Gowdey; 2nd, A. S. Kirkland; 3rd, R. H. Malone; 4th, J. L. Telford; 5th, A. T. Henderson; 6th, W. T. Purdy.

Medicine: 1st, W. C. Gowdey; 2nd, R. H. Malone; 3rd, A. S. Kirkland; 4th, A. T. Henderson; 5th, W. T. Purdy.

Surgery: 1st, T. A. Malloch, B.A.; 2nd, S. G. Ross, B.A.; 3rd, W. T. Purdy; 4th, J. A. Smith; 5th, C. H. Robson; 6th, J. L. Telford; 7th, A. S. Kirkland; 8th, R. E. Robertson; 9th, J. F. Grant.

Obstetrics: 1st, W. C. Gowdey; 2nd, R. H. Malone; 3rd, J. H. Beaudry, J. R. Cumming, J. E. O'Donnell, W. T. Purdy, C. H. Robson; 8th, A. S. Kirkland; 9th, J. L. Telford.

Gynæcology: 1st, W. C. Gowdey; J. L. Telford; 3rd, T. A. Malloch, B.A.; 4th, A. S. Kirkland, W. J. McGibbon, M.D.

Ophthalmology: 1st, A. S. Kirkland; 2nd, J. H. Beaudry, W. A. Hutton; 4th, A. T. Henderson, R. H. Malone, W. T. Purdy; 7th, J. F. Grant; 8th, P. W. DeGarmo, T. A. Malloch, B.A.; 10th, Melville Kroli.

Oto-Laryngology: 1st, C. H. Robson; 2nd, F. S. Baird; 3rd, A. T. Henderson, J. L. Telford; 5th, A. S. Kirkland, T. A. Malloch, B.A.; 7th, W. C. Gowdey.

Pathology: 1st, A. T. Henderson; 2nd, R. H. Malone; 3rd, J. L. Telford; 4th, J. T. Wall; 5th, W. C. Gowdey; 6th, J. H. Atkinson, W. D. Cruikshank, H. E. Cumming, Jacob Segal; 10th, Norman Brown, D. W. Crombie, J. F. Grant, F. D. Parker; 14th, J. R. Cumming, A. S. Kirkland, H. E. MacDermot, J. S. McDiarmid, B.Sc., W. G. Morris, Philip Nase, S. G. Ross, B.A.

Dermatology: 1st, W. G. Morris, H. S. York; 3rd, L. E. Clark, W. D. Cruikshank, H. C. Dixon, B.A., J. F. Grant, A. T. Henderson, G. D. McIntyre, J. G. Phillips, C. H. Robson.

The following is the pass list: J. H. Atkinson, Watertown, N.Y.; F. S. Baird, Bay City, Michigan; Malcolm Beaton, Blackville, N.B.; J. H. Beaudry, Bridgeport, Conn.; J. P. Bilodeau, New Westminster; T. A. Briggs, Victoria; Norman Brown, New Westminster; I. E. Bruneau, B.A., Cornwall, Ont.; D. F. Bustead, Kamloops, B.C.; L. E. Clark, Vancouver; D. W. Crombie, London, Ont.; C. T. Crowdy, St. Johns, Nfld.; W. D. Cruikshank, Hamilton; H. E. Cumming, Russell, Ont.; J. Cumming, South Gower, Ont.; P. W. DeGarmo, Kingston, N.Y.; A. L. DeLahey, Pembroke, Ont.; H. C. Dixon, B.A., Maple Creek, Sask.; C. A. Forbes,

Bonavista, Nfld.; A. N. Foster, Providence, R.I.; G. M. Geldert, Windsor, N.S.; R. Gillis, Summerside, P.E.I.; W. C. Gowdey, Bridgetown, Barbados; J. F. Grant, Victoria; G. M. Grundy, Long Beach, Cal.; A. T. Henderson, Brownstown, Jamaica; W. A. Hutton, Lachine, Que.; T. A. Jones, M.D., Georgetown, Demerara, B.G.; A. S. Kirkland, New Westminster; Melville Kroli, Winnipeg; T. H. Lennox, Fort Qu'Appelle, Sask.; E. C. Levine, Montreal; H. E. MacDermot, Gordontown, Jamaica; A. A. MacKay, Montreal; D. A. MacLeod, Ottawa; J. S. McDiarmid, B.Sc., Ingersol, Ont.; W. J. McGibbon, M.D., Chateauguay, N.Y.; G. D. McIntyre, Avonmore, Ont.; L. T. McNulty, Norwood, N.Y.; T. A. Malloch, B.A., Hamilton; R. H. Malone, Antigua, B.W.I.; J. E. Meeker, Moira, N.Y.; W. G. Morris, Regina; Finlay Munroe, Maxville, Ont.; J. G. Munroe, Woodstock, Ont.; Philip Nase, St. John, N.B.; J. E. O'Donnell, Fort William, Ont.; F. D. Parker, Wolfville, N.S.; G. W. Phelan, Belfort, Maine; J. G. Phillips, Forest, Ont.; W. T. Purdy, Amherst, N.S.; R. B. Robertson, Vancouver; C. H. Robson, Westminster, Ont.; S. G. Ross, B.A., Montreal; T. J. Scobie, Kars, Ont.; Jacob Segal, Montreal; J. A. Smith, New Westminster; J. L. Telford, Vancouver; A. E. Thompson, Coaticook, Que.; J. T. Wall, Vancouver; W. E. Williams, Mount Pleasant, P.E.I.

THE open air classes for tubercular children, which have been carried on during the winter at the King Edward Institute, at Montreal, have been so successful that a day camp has been opened, which accommodates about fifty children, where they can be kept out of doors all through the summer. The children are under the care of a physician, and records are kept of the progress of each child. The estimated cost of the camp, if continued for three months as is the intention, is about \$1,500.

THE report for 1912 of the Montreal Children's Memorial Hospital shows that the past year has been a successful one. 241 patients received treatment; 48 were discharged "cured," 105 "improved," and 5 "not improved"; 15 were not treated and 16 died, while 52 are still receiving treatment. The number of hospital days was 17,553, and the average daily cost of treatment for each patient was \$1.25. It is hoped next spring to commence a new building for the school for cripples. An outdoor department is needed and the services of a district nurse would be very helpful. The present endowment fund only amounts to one thousand dollars and among all the worthy institutions in need of financial

assistance, there is none perhaps more deserving than this hospital.

DR. L. A. CHABOT has been appointed medical officer of health for the city of Verdun.

DR. J. ALEX. HUTCHISON, of Montreal, was elected a Fellow of the American Surgical Association, at the recent meeting of the association in Washington.

THE following is the list of those who have graduated in medicine from Laval University, Quebec: J. C. Bedard, W. A. W. A. Blagdon, J. A. Belanger, A. B. Cote, M. Dolbec, F. R. S. Gervais, Rod Hebert, A. Lapointe, P. H. Lafreniere, Eug. R. Rioux, F. X. Trepanier, Rob. Veilleux, Chs. Vezina, J. B. Trudel and Villeneuve.

A CHAIR of Phthisiotherapy has been established at Laval University, Montreal. For this purpose the sum of \$10,000 was given by Mr. Auguste Richard, president of the Fashion Craft Manufacturers. Dr. J. E. Dubé has been appointed to the professorship. For the past fifteen years, Dr. Dubé has been particularly interested in the prevention of tuberculosis and has worked unremittingly in this direction. He was the founder of the Bruchesi Institute at Montreal and of the preventorium at Beloeil.

DURING the month of May seven patients were admitted, and three were readmitted to the Protestant Hospital for the Insane at Montreal. Four patients were discharged and three deaths occurred.

DURING April 8,436 visits were made by the Victorian Order of Nurses in Montreal; the cases attended numbered 1,095.

AN effort is being made in Montreal to establish a floating hospital for poor children. It probably will be impossible this year to obtain a cruising vessel but it is hoped to procure a houseboat which could be moored at some suitable place in the river.

THE Mount Sinai Sanatorium at Ste. Agathe was opened officially on June 29th. The erection of an administration build-

ing is under consideration, so that the whole of the present building may be devoted to hospital work. Up to May 30th, sixty-five patients had been admitted to the sanatorium and thirty-five of these had been discharged and were able to resume their work.

MANITOBA

THE medical inspection department of the public schools at Winnipeg is preparing an exhibit to show what is being done to preserve the health of the school children. The exhibit consists in large part of photographs, which will be shown at the next Winnipeg and Brandon Industrial Exhibition.

It is proposed to build a permanent residence for the medical superintendent of the civic hospitals in Riverview, Winnipeg. The cost is estimated at ten thousand dollars.

SASKATCHEWAN

At the next annual elections a by-law will be submitted to the ratepayers of Rosthern, with a view to establishing a hospital there.

ALBERTA

At a meeting of the Calgary joint hospital committee which took place April 25th, it was resolved that, in view of the urgent demand for increased hospital accommodation, a portion—about two acres—of the hospital property should be transferred to the city and that additional buildings should be erected on this property with money to be granted by by-law; and that, in return, the city should grant the sum of \$20,000 to the hospital board to pay off the cost of past and present improvements to the old building.

It is expected that the hospital which is being built at Strathcona will be completed next November.

SEVERAL cases of smallpox have occurred in Calgary. In one instance, the fact that a child was suffering from the disease was concealed by the parents for several days and no doctor called in, because they feared that the father's business would suffer.

It is the intention to build a new isolation hospital at Medicine Hat. It has been suggested that three separate cottage hospitals

should be built, one for scarlet fever, one for diphtheria, and one for smallpox. The site has not yet been chosen.

BRITISH COLUMBIA

At a meeting of the board of directors of the Vancouver General Hospital, which took place May 28th, it was resolved that the executive head of the hospital should be the medical superintendent. It was considered desirable that the position should be held by a medical man rather than by a layman and a previous resolution to the effect that a layman should be appointed was rescinded. It was decided that the applications for the post should be considered and reported upon at the next meeting. During the month, 789 patients were treated in the hospital and the number of hospital days was nine thousand, eight hundred and forty-four.

FIFTY-TWO patients were admitted to the Kootenay Lake General Hospital during April. These were 847 days of treatment and the average daily cost per patient was \$1.73. It has been decided to increase the charge made for private rooms to \$3.00 a day. The charge in the general wards is \$12 a week.

A GENERAL hospital has been established at Stewart.

THE second annual meeting of the Convalescent Home and Emergency Hospital at Duncan was held May 7th. Although the hospital has only been established for two years, it is now necessary to enlarge it, and a building is to be added which will be devoted entirely to maternity cases. It will have a frontage of ninety-one feet and will cost about \$6,500, of which \$4,000 has been granted by the provincial government. It is hoped that the building will be completed in September. During the year 158 patients were treated in the hospital, the number of hospital days being 2,966. The average daily cost for each patient was \$2.48 and the per capita grant received from the government amounted to seventy-seven cents.

At the end of April there were in the provincial mental hospital 580 male and 222 female patients.

THE plans for the new Kootenay Lake General Hospital at Nelson have been approved by the provincial government and the construction of the building is to be commenced at once.

NEWFOUNDLAND

THE question of enlarging the general public hospital at St. Johns, Newfoundland, has been under discussion for some time. However, nothing is to be done just now, but a committee has been authorized to secure additional land with a view to the erection of new buildings thereon. The present building is old and it is considered wiser not to enlarge it but rather to wait until new buildings can be built.

AN outbreak of diphtheria is reported from Norris' Arm, Newfoundland.

Canadian Literature

ORIGINAL CONTRIBUTIONS

The University of Toronto Medical Bulletin, April, 1913:

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|---|-----------------------------------|
| A case of traumatic amnesia | G. F. Boyer |
| The result of treatment of syphilis as shown
by the Wassermann reaction | Gordon Bates and
G. S. Strathy |
| The systematic diagnosis of progressive
atrophy of muscles with the report of
an unusual case of disseminated sclerosis | G. W. Holland. |
| Report of a case of specific cerebro-spinal
meningitis successfully treated by intra-spinal
injections of antimeningococcic serum | W. B. Thistle |
| Notes on a case of acute primary pyelitis
with remarks upon acute bacterial invasion
of the kidneys | J. T. Fortheringham. |
| The diuretic action of theobromine and
of theophylline | R. D. Rudolf. |
| Nervous hypochylia with recovery—cardiac
arrhythmia due to the administration of digitalis | G. Chambers. |

- Reflex irregular contraction of the stomach
simulating hour-glass contraction—
rupture of duodenum with complete
duodenal fistula: recovery G. Bingham.
- Tendon fixation, a new operation for the
prevention of paralytic deformities W. E. Gallie.
- Fracture of the wrist: analysis of the
x-ray plates of a series of ninety-four
cases E. Stanley Ryerson.
- A case of hæmatocolpos, with reference to
the theories of causation, and the
arsenic content of the fluid A. C. Hendrick and
H. S. Raper.
- Cæsarean section repeated on the same
patient K. C. McIlwraith.
- A case of abscess of the temporo sphenoidal
lobe following acute otitis media G. Royce.
- Upon the reliability of the ordinary signs
of acute cystitis G. E. Wilson.
- Report of a case of fracture of the pelvis
with rupture of the urethra E. Stanley Ryerson.

The Canadian Practitioner and Review, May, 1913:

- Radium in dermatology W. H. B. Aikens and
F. C. Harrison.
- Individualization in the treatment of pul-
monary tuberculosis C. D. Parfitt.
- Mental diseases and their early recogni-
tion A. T. Hobbs.
- The office treatment of diseases of the
rectum C. F. Durand.

The Canadian Journal of Medicine and Surgery, June, 1913:

- Sir William Tennant Gairdner, the ideal
physician J. Ferguson.
- The early diagnosis of cancer of the uterus
with report of an hysterectomy in an
early case A. C. Hendrick.

Dominion Medical Monthly, June, 1913:

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| Some aspects of renal surgery . . . | R. Guiteras. |
| Dr. Lord's undertaking . . . | A. C. E. |

L'Union Médicale du Canada, May, 1913:

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|---|---------------|
| Le traitement de la fièvre typhoïde par le
phylacogène ou sérum-vaccin de
Schafer . . . | E. P. Benoit. |
|---|---------------|

Le Journal Chirurgical de l'Hotel-Dieu, April, 1913:

- | | |
|---|------------------|
| Les fractures de la rotule; pourquoi,
quand, et comment faut-il opérer . | E. Saint-Jacque. |
|---|------------------|

Le Bulletin Médical de Québec, May, 1913:

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|---|----------------|
| Une mère éclamptique ou néphritique,
peut-elle nourrir sans danger pour son
nourrisson? . . . | A. Jobin. |
| L'hôpital des tuberculeux . . . | A. Rousseau. |
| A propos des ulcérations aiguës de l'es-
tomac . . . | J. P. Frémont. |

The Canadian Practitioner and Review, June, 1913:

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| The physiology and pathology of the in-
ternal secretory organs . . . | J. Ferguson. |
| Abscess beneath the deep cervical fascia . | N. A. Powell |
| Tuberculosis of the kidney . . . | R. Guiteras. |

Medical Societies

SWIFT CURRENT DISTRICT MEDICAL ASSOCIATION

THE following officers have been elected by the Swift Current Medical Association: honorary member, Dr. T. G. Roddick, Montreal; honorary president, Dr. Low, Regina; president, Dr. Graham; first vice-president, Dr. Moore, Webb; second vice-president, Dr. Denovan, Morse; secretary-treasurer, Dr. Hughes; executive committee, Dr. McArthur, Dr. Kelly, and Dr. Cairns.

MONTREAL MEDICO-CHIRURGICAL SOCIETY

THE twelfth regular meeting of the society was held Friday, March 28th, 1913, Dr. D. J. Evans, president, in the chair.

LIVING CASE: Tuberculous disease of the appendix, by Dr. J. Alex. Hutchison.

DISCUSSION. Dr. W. G. Reilly: I would like to ask if there was anything in the bowels showing evidence of tuberculosis there, or in the mesenteric glands—enlarged glands, etc.

Dr. Hutchison: There was no evidence whatever, the disease was practically limited to the lesion in the cæcum itself; no suspicious glands anywhere.

Dr. Wilson: It is a pity that in view of the rarity of the condition and the desirability of finding out if there were lesions elsewhere, that a picture could not have been procured of the man's chest. This would show if there were any healed tubercular foci in the lungs.

PATHOLOGICAL SPECIMENS: Exhibited by Dr. O. C. Gruner.

A series of specimens of uteri showing different forms of endometritis; two are cases of tubercle and a third a septic endometritis. They are of interest owing to the typical form of the lesions and because we have had several cases of the same kind within a few months.

The first was obtained from a girl aged eighteen who was suffering chiefly from tuberculous peritonitis. The abdomen pre-

sented a curious appearance on opening it, owing to the conversion of the omentum into an opaque glassy membrane through which one could not see the intestines. On lifting up the omentum, the intestines were found bound down and simply covered with miliary tubercles. The lungs were full of large tuberculous nodules bearing the clover-leaf form characteristic of tubercular broncho-pneumonia. The genitalia were all matted together and on dissection the following condition was found: though each tube contained pus of an opaque cheesy character, they were not so extensively diseased as the uterus. The uterus shows a granular surface which was quite yellow when fresh. Microscopically, it shows the characteristic caseous tuberculous masses. The tubes also show caseous tubercles under the microscope. They are not much dilated; the mucous membrane has become thickened.

The other specimen is from a woman of about twenty-six. In this case the condition was supposed to be appendicitis. There was a long history of pain in the uterine region and a mass was felt. The appendix was removed: it was tuberculous, the tubercles being extra-muscular. The wound never healed and a fistula was established which occasionally discharged fæces and pus. It turned out that the cæcum was perforated, the aperture being large enough to admit the little finger. This would get blocked up by solid fæces which became dislodged at intervals and then allowed fluid fæces to escape. The change in the right tube consists in an increase in the size of the fimbriæ which appear as finger-like masses of tissue enveloping a solid inflammatory focus. On the left side the tube is very tortuous and not much dilated, but the mucous membrane is greatly thickened. The uterus showed commencing tuberculous endometritis; tuberculous ulcers were also found in the intestine.

The third specimen exemplifies the difference between the preceding conditions and a septic endometritis. The lumen of the mucous membrane here is replaced by a false membrane which has the same colour when fresh as the tuberculous membrane, the difference being that the small nodules are not present, and that there is fissuring of the surface and no tubercles. When fresh the walls were flabby in this septic case, while the walls of the tubercular specimens were hard.

CASE REPORT WITH SPECIMEN: Patent foramen ovale in a boy of sixteen, by Drs. Grant Campbell, and H. H. Hepburn.

DISCUSSION: In the dissecting room in ten years a certain number of cardiac defects have been found of which one of the most common is the ordinary patent foramen ovale. Most of these oc-

curring in adults and in none of the cases were there other marked defects coexisting with them. In one case the ordinary lead pencil could be readily passed through the wall. Hearts such as the one here shown, with such defects, have not been seen in the dissecting room. In the series in the anatomical museum the main variations are those in which there are defects in the position of the vessels of the heart. The patent foramen ovale is not a very uncommon defect found in the dissecting room. Dr. Maude E. Abbott in connexion with this case exhibited her chart on congenital cardiac disease showing statistics of 400 cases.

Dr. A. T. Bazin: In this specimen mention is made of two auricles and two ventricles with an additional chamber at the top of the right ventricle. I would like an explanation of the embryological development of that third chamber on the right side.

Dr. D. J. Evans: I had a rather unusual experience some years ago with a "blue" mother who gave birth to a "blue" baby. She had the usual experience of recurrent attacks of cyanosis, was always more or less blue in colour, used to get almost black at times, and yet she had reached mature life and had no trouble during pregnancy or labour and neither in mother or child could I detect any evident cardiac murmur; there was some enlargement of the heart in the mother but nothing abnormal was noted on examination of the heart in the child at all.

Dr. A. R. Pennoyer: I remember a case of patent foramen ovale some five years ago. An eminent European surgeon was operating on the thyroid and during the course of the operation he opened a large vein; there was immediately a bubbling sound of the entrance of air into the vein and at once the patient became hemiplegic, and died in a few hours. It was found that the air had gone through the patent foramen ovale to the left side of the heart and into the general circulation producing a cerebral air embolism.

Dr. Maude E. Abbott: We have a specimen in the museum of the two-chambered heart of a shark which shows very well this conus chamber, and which may be taken to represent the stage of development of the heart at which growth has been arrested in this specimen. Before the development of the septa, the conus of the common ventricle is a separate muscular chamber. In the shark it is a muscular chamber with a distinct constriction below which disappears later. Greil, in Germany, and others, have studied this question of the conus as a separate chamber and working on the basis of comparative anatomy found the stage at which it disappears in the human heart. In this heart there is a special point

of interest which may be regarded either as a compensatory process or as a persistence of a stage of arrested development. Just below the conus we see a distinct cusp into which you can insert a match. Now this might possibly be an embryonic cusp showing an arrest of development, or what is much more likely a compensatory cusp such as may develop below an insufficient valve. Thus in aortic insufficiency (as figured by Aschoff) you see little pouches which develop to prevent regurgitation of the blood, and this small cusp on the wall of the conus looks like such a compensatory cusp rather than a persistence of one of the embryonic cusps.

PAPER: The paper of the evening was read by Dr. A. T. Bazin on "Tuberculous appendicitis."

DISCUSSION: Dr. F. R. England: I would like to ask Dr. Bazin if he has any opinion as to the source of infection in these cases. Two years ago I had a case which we considered at the time a tuberculous appendix. Certainly there were tuberculous mesenteric glands along the ascending colon nearly up to the hepatic flexure; several of these glands were caseous; iodoform gauze for drainage was employed and pus escaped for some time. It was thought at the time, owing to the temperature, that the patient had a widespread, probably miliary tuberculosis, nevertheless the temperature subsided and she made a very excellent recovery.

Dr. Howard Pirie: I am surprised to find, from the statistics given by Dr. Bazin, how rare it is to get tuberculosis of the appendix. As far as I remember he mentioned 2,000 cases of post mortem examinations and only 17 cases of tuberculosis of the appendix, and in the General Hospital only three. One explanation is that those cases which get tuberculosis in the appendix are cases of constipation in the appendix. By means of the bismuth meal we occasionally come across this; in the majority of cases the appendix does not fill up after the meal, in other cases it remains full for two or three days, and I have seen bismuth remain in the appendix as long as forty-three days. If the patient had swallowed tuberculous matter and it had remained there for that length of time, the result might have been tuberculosis. There are cases in which, after a bismuth meal, the appendix normally fills up, so that it can be demonstrated by x-rays.

Dr. A. T. Bazin: In reply to Dr. England I might say that I mentioned that, in the hyperplastic type, the lesions are mainly in the submucosa; they may be in the mucosa but not in such large numbers. In the ulcerative type the lesions are chiefly in the mucosa. The bacilli, being swallowed with the sputum, attack the lymphoid

follicles and these break down. The appendix being rich in lymphoid tissue, you would expect to find considerable tuberculous infection there. As for the gauze I would say that it was not used as a drain but simply as a packing to keep the cæcum back into the abdomen. Dr. Pirie's remarks in regard to bismuth in x-rays of the appendix are very interesting. I should judge that an appendix which rapidly filled with bismuth would show that the valve between the appendix and the cæcum was not patent and would not be likely to develop a stenosis. Van Swalenberg in the *Annals of Surgery* some years ago dealt with the etiology of appendicitis as being entirely due to intra-appendical pressure, and considered that appendicitis would occur only when there was a stenosis of some part of the lumen of the appendix and the fluid contents developed pressure. There is filling up of the appendix in any case of acute appendicitis and we know that relief of symptoms is very often due to this pressure being removed, either by escape of the contained fluid into the cæcum with recovery from that attack or by rupture of the appendix with but temporary amelioration of pain and the subsequent development of peritoneal symptoms.

CASE REPORT WITH SPECIMENS: Clinical points in some unusual surgical cases, by Dr. F. R. England.

1. Young man with sarcoma of the femur. Nothing in family or personal history bearing on disease. Suffered pain for six months in left leg beginning just above the knee. For this pain the patient had received treatment for rheumatism—salicylates, etc., and finally a swelling appeared about the upper third of the femur. A fusiform swelling could be made out just below the lesser trochanter. Von Pirquet was negative. The clinical diagnosis was that of sarcoma. An X-ray was taken. Amputation at the hip-joint; convalescence satisfactory.

2. Fracture dislocation of the cervical vertebræ. Young Pole, powerfully built, about twenty-two, employed in rolling mills. A belt driving some machinery broke, and swung around hitting him on the head, neck and shoulder. Laminectomy was performed twelve hours after admission; death twenty-four hours after operation, respiration failing from an ascending paralysis. One can hardly hope for any satisfactory results from laminectomy in the cervical region for recent fracture dislocation.

3. Solitary or so-called horse-shoe kidney and renal calculus. The young man had all the symptoms of stone in the kidney, blood in the urine and severe reflected pain. At operation on attempting to detach the fatty capsule I found the kidney healthy looking

but lower than normal. Suddenly a pretty sharp hæmorrhage occurred, the bleeding was difficult to control and I soon realised that an anomalous artery had been severed. After stopping the bleeding I continued to detach the capsule and found a much enlarged kidney with a large calculus in the pelvis.

4. Renal calculus. The patient was a French Canadian, aged fifty-eight, weighing 220 lbs. For fifteen years he had suffered pain over the left loin and had much rheumatic treatment. A peculiar thing in the symptoms was that he was able to incite pain by certain body movements. The x-ray picture shows the shadow of this stone very clearly. Nephrolithotomy was performed with good recovery.

In the case of the fractured vertebræ, it is generally considered that if the cord is destroyed the reflexes are abolished; but if they are present, there may be only pressure on the cord. It is supposed in these cases that at the moment of impact the cord is crushed between the body of the lower vertebræ and the lamina of the upper vertebræ. About two-thirds of the cases recoil and the pressure is relieved without laminectomy; in these cases the damage done to the cord has been inflicted at the moment of impact, the cord is crushed and the pressure at once relieved.